

20020316.qrp v02_n496.qrl.20020316

Date: Sat, 16 Mar 2002 19:03:06 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2496

QRP-L Digest 2496

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- 2) [122195] I Still Say: "Stick It In Your Ear!"
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- 3) [122196] Re: Anyone read this book
by Tom Feeny <tfeeny@comcast.net>
- 4) [122197] Re: Wire Antenna materials your VIEWS?
by W2AGN <w2agn@pobox.com>
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by W2AGN <w2agn@pobox.com>
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- 7) [122200] RE: Shortened dipole designs
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- 8) [122201] circad
by "carl seyersdahl" <carlseye@tampabay.rr.com>
- 9) [122202] Badger kit
by Lee Wilson <leesgoofy@usa.net>
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- 11) [122204] Tiny Tornado Photos
by "K7FD N7SG" <k7fd@hotmail.com>
- 12) [122205] DSWTUN95 release 2.00 now showing...
by "Bill, N4QA" <n4qa@hotmail.com>
- 13) [122206] Parts Storage-Free & Adapters
by aluscre <aluscre@neo.rr.com>
- 14) [122207] Cone comparisons to loaded monopole
by "Stuart Rohre" <rohre@arlut.utexas.edu>
- 15) [122208] Logs?
by "George, W5YR" <w5yr@att.net>
- 16) [122209] Another heath-Scope question
by "Dave" <wr3i@earthlink.net>
- 17) [122210] CW problem
by wa0goz@arrl.net
- 18) [122211] Re: CW problem
by MIKE SOUHRADA <wb9iog@revealed.net>

- 19) [122212] Re: CW problem
by "George, W5YR" <w5yr@att.net>
- 20) [122213] Re: [CW problem]
by "P.Ermisch" <ermisch@usa.net>
- 21) [122214] DDS Update...SMK-1 meets DDS VFO meets Tick Keyer!
by "Trevor Jacobs" <fxtech@earthlink.net>
- 22) [122215] Re: DDS Update...SMK-1 meets DDS VFO meets Tick Keyer!
by "Trevor Jacobs" <fxtech@earthlink.net>
- 23) [122216] Re: CW problem
by "Ingo, DK3RED" <dk3red@t-online.de>
- 24) [122217] Re: [NJQRP] How to change Badger smartbadge software
by Patrick Gardella <pgardella@yahoo.com>
- 25) [122218] PSK-80 Warblers Sold
by "N3BJ" <alanfryer@msn.com>
- 26) [122219] Pesky - Texan Armadillo Logs
by "N1LN" <n1ln@earthlink.net>
- 27) [122220] Good CW Procedure Article on ARRLWeb
by "Rod N0RC" <rod@n0rc.com>
- 28) [122221] PICs and Microcontrollers Questions
by "Tom Curtola" <tcurtola@rogers.com>
- 29) [122222] Re: PICs and Microcontrollers Questions
by "Leon Heller" <leon_heller@hotmail.com>
- 30) [122223] Re: Wire Antenna materials your VIEWS?
by Jim Eshleman <jce0@Lehigh.EDU>
- 31) [122224] FS: SW40+ w/RIT (Reduced)
by "N3BJ" <alanfryer@msn.com>
- 32) [122225] Re: Good CW Procedure Article on ARRLWeb
by "Jeff Davis" <n9avg@att.net>
- 33) [122226] Re: PICs and Microcontrollers Questions
by Patrick Gardella <pgardella@yahoo.com>
- 34) [122227] Re: Cone comparisons to loaded monopole
by "James R. Duffey" <jamesd1@flash.net>
- 35) [122228] WAS ans ARRL Awards
by "Rod N0RC" <rod@n0rc.com>
- 36) [122229] Tiny Tornado - UP AND RUNNING!!
by "K7FD N7SG" <k7fd@hotmail.com>
- 37) [122230] Re: WAS ans ARRL Awards
by "Brian Murrey" <brian@iquest.net>
- 38) [122231] Re: PICs and Microcontrollers Questions
by W2EB <w2eb@twcnny.rr.com>
- 39) [122232] Pesky - Texan Armadillo Logs (update)
by "N1LN" <n1ln@earthlink.net>
- 40) [122233] Re: WAS ans ARRL Awards
by Larry Cahoon <lejek@erols.com>
- 41) [122234] QRP WAS Awards
by "WI8W" <wi8w@arrl.net>
- 42) [122235] Re: PICs and Microcontrollers Questions
by "John J. McDonough" <wb8rcr@arrl.net>

- 43) [122236] Re: PICs and Microcontrollers Questions
by David Hinerman <wd8civ@worldnet.att.net>
- 44) [122237] Re: WAS and ARRL Awards
by "Brian Murrey" <brian@iquest.net>
- 45) [122238] Re: PICs and Microcontrollers Questions
by "John P. Cummins, Sr." <jpcummins@charter.net>
- 46) [122239] Antenna Wire
by "James R. Duffey" <jamesd1@flash.net>
- 47) [122240] Va QSO Party
by Dan Wolfe <n4roa@mounet.com>
- 48) [122241] Re: PICs and Microcontrollers Questions
by Brian Short <k7on@earthlink.net>
- 49) [122242] VA QSO Party
by "Jim Stamper" <jstamper@shentel.net>
- 50) [122243] Re: PICs and Microcontrollers Questions
by "John J. McDonough" <wb8rcr@arrl.net>
- 51) [122244] Re: Wire Antenna materials your VIEWS? (Long)
by W2SH@aol.com
- 52) [122245] making your own vertical
by Schunn99@aol.com
- 53) [122246] Re: Antenna Wire
by "Francis Callahan" <colcal@srv.net>
- 54) [122247] HB - parts - RCA phono jacks
by Harry Hurst <wa3ptg@comcast.net>
- 55) [122248] Re: [fpqrp] Cub Fox Soapbox and 1st Draft Log
by "Mike Malone" <mmalone@worldlogon.com>
- 56) [122249] Re: Wire Antenna materials your VIEWS? (Long)
by W2AGN <w2agn@pobox.com>
- 57) [122250] Re: HB - parts - RCA phono jacks
by Harry Hurst <wa3ptg@comcast.net>
- 58) [122251] Re: Wire Antenna materials your VIEWS? (Long)
by Dave Fouchey <dafouchey@comcast.net>
- 59) [122252] Re: Parts Storage
by Ted Kell <tedkell@ev1.net>
- 60) [122253] Re: [fpqrp] Cub Fox Soapbox and 1st Draft Log
by "Mike WA8BXN" <hubby2k@hotmail.com>
- 61) [122254] Head copy
by Steven Weber <kd1jv@moose.ncia.net>
- 62) [122255] Re: PICs and Microcontrollers Questions
by Steven Weber <kd1jv@moose.ncia.net>
- 63) [122256] KQ5U's Armadillo Log
by "tmyers" <tmyers@AcademicPlanet.com>
- 64) [122257] Re: making your own vertical
by Larry Cahoon <lejek@erols.com>
- 65) [122258] Re: Head copy
by "J. W. (Dub) Thornton" <dub@oklahoma.net>
- 66) [122259] where can I find?
by Bruce Rattray <rattray@gpfn.sk.ca>

- 67) [122260] Re: PICs and Microcontrollers Questions
by "Trevor Jacobs" <fxtech@earthlink.net>
- 68) [122261] Re: where can I find?
by MIKE SOUHRADA <wb9iog@revealed.net>
- 69) [122262] Re: making your own vertical
by NOBN@aol.com
- 70) [122263] Re: where can I find?
by W2AGN <w2agn@pobox.com>
- 71) [122264] Re: where can I find?
by Ekim Snav <kd5aad2000@yahoo.com>
- 72) [122265] Re: where can I find?
by "Mike Yetsko" <myetsko@insydesw.com>
- 73) [122266] RE: where can I find?
by "Ed Tanton" <n4xy@earthlink.net>
- 74) [122267] Re: PICs and Microcontrollers Questions
by "Mike Yetsko" <myetsko@insydesw.com>
- 75) [122268] 20 Meter Half Square Antenna for QRP Portable Operation
by Mike Bray <mikebray@uplogon.com>
- 76) [122269] Re: where can I find?
by Arthur Moe <kb7ww@easystreet.com>
- 77) [122270] Re: 20 Meter Half Square Antenna for QRP Portable Operation
by W2AGN <w2agn@pobox.com>
- 78) [122271] Re: where can I find?
by wb4mnf <wb4mnf@atl.org>
- 79) [122272] ZM-2 vari-cap
by Ed Loranger <we6w@qsl.net>
- 80) [122273] Re: Head copy
by Bruce Muscolino <w6toy@erols.com>
- 81) [122274] Re: Head copy
by W2AGN <w2agn@pobox.com>
- 82) [122275] FS: DSW Enclosure Kit
by "N3BJ" <alanfryer@msn.com>
- 83) [122276] RE: Head copy
by "Bill & Linda Milligan" <milligan@charter.net>
- 84) [122277] Re: Head Copy
by "WI8W" <wi8w@arrl.net>
- 85) [122278] Re: Head copy
by Paul Womble <pwomble1@tampabay.rr.com>
- 86) [122279] Mack2 Updated
by Steve Muncy <smuncy@mac.com>
- 87) [122280] Re: Head copy
by Doug <doug@ycsi.net>
- 88) [122281] Re: ZM-2 vari-cap
by "James R. Duffey" <jamesd1@flash.net>

Date: Fri, 15 Mar 2002 19:15:30 -0500

From: Harry Hurst <wa3ptg@comcast.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122194] Re: Parts Storage
Message-ID: <002601c1cc7f\$b0541d60\$0400a8c0@icomcast.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Jim & Lee,

Yes there are hams in Delaware. We just don't operate!
Tomorrow, instead of operating, I'll be at the Cherryville Repeater
Association hamfest in Clinton, NJ. Hope there is some good junk, uh,
parts... I haven't been to a hamfest since September. Got a new parts
cabinet a while back, and it's still empty.
After the hamfest, and after all the family duties are done, I'll be
finishing some unfinished projects so there is room to start some more
projects that will remain unfinished for months....

Hap, WA3PTG
Wilmington DE
"Hey, I'm just an amateur."

Date: Fri, 15 Mar 2002 19:18:15 -0500
From: KKANALZ@prodigy.net
To: <aa4lr@arrl.net>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122195] I Still Say: "Stick It In Your Ear!"
Message-ID: <AA-5798FAF6C4EDFF4F9802594CC34105DE-ZZ@www4.prodigy.net>

--- Original Message ---

From: Bill Coleman <aa4lr@arrl.net>
To: <qrp-1@Lehigh.EDU>
Subject: Re: Wooden Separaters in Pariffin

>On 3/14/02 8:18 PM, KKANALZ@prodigy.net at
KKANALZ@prodigy.net wrote:

>

>>Well, Bill, that's why the ol' timers *boiled* them
in paraffin -- to make them impervious to water!

<snip>

Date: Fri, 15 Mar 2002 19:25:47 -0500
From: Tom Feeny <tfeeny@comcast.net>
To: *QRP-L <qrp-l@Lehigh.EDU>
Subject: [122196] Re: Anyone read this book
Message-ID: <000401c1cc81\$216b1d40\$24553e44@waldlk01.mi.comcast.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

> It can be ordered from the ARRL, although
> I suppose Amazon also carries them.

FYI
Another place to look is www.fatbrain.com
They have discount prices on technical books.
Usually cheaper than Amazon and others.
Their price for the De Maw book is \$15.00
regards,
Tom, W8K0X

Date: Fri, 15 Mar 2002 19:29:02 -0500
From: W2AGN <w2agn@pobox.com>
To: DeniGm3skn <deni@gm3skn.fsnet.co.uk>, w2agn@pobox.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122197] Re: Wire Antenna materials your VIEWS?
Message-ID: <02031519290208.08464@jsielke>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

On Friday 15 March 2002 17:44, DeniGm3skn wrote:

>
> Hi John, yes I believe the flexweave wire has it's problems especially in a
> sea salt environment!
> No use here!
> I think the best solution I have heard is solid copper heavy Gauge wire #16
> SWG Enamel covered as used to wind/rewind industrial electrical motors.
> I wonder if you have checked out the big loop resistance lately ;)
>
> 73 Deni Gm3skn

--

Yep, it turned green and powdery. Not good at all!

John L Sielke W2AGN
w2agn@pobox.com

<http://mywebpages.comcast.net/w2agn>
Trustee: W3IYQ

Date: Fri, 15 Mar 2002 19:34:28 -0500
From: W2AGN <w2agn@pobox.com>
To: KKANALZ@prodigy.net,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122198] Re: I Still Say: "Stick It In Your Ear!"
Message-ID: <0203151934280D.08464@jsielke>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

On Friday 15 March 2002 19:18, KKANALZ@prodigy.net wrote:

> --- Original Message ---
> From: Bill Coleman <aa4lr@arrl.net>
> To: <qrp-1@Lehigh.EDU>
> Subject: Re: Wooden Separaters in Pariffin
>
> >On 3/14/02 8:18 PM, KKANALZ@prodigy.net at
>
> KKANALZ@prodigy.net wrote:
> >>Well, Bill, that's why the ol' timers *boiled* them
>
> in paraffin -- to make them impervious to water!
> <snip>

--

Why do we ALWAYS get back to ear wax?

John L Sielke W2AGN
w2agn@pobox.com

<http://mywebpages.comcast.net/w2agn>
Trustee: W3IYQ

Date: Fri, 15 Mar 2002 19:48:20 -0500
From: KKANALZ@prodigy.net
To: <w2agn@pobox.com>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [122199] Ear Wax Works On Spreaders!
Message-ID: <AA-BE87EDBA04774509BBB9417B6EF66DFD-ZZ@homebase1.prodigy.net>

We get back to "Wax" (of which paraffin is a derivative) because it works for open-wire spreaders, Bill.

Karl K - W8TIF
McKinney, Texas
(just a few miles north of W5YR)
--- Original Message ---
From: W2AGN <w2agn@pobox.com>
To: <qrp-l@Lehigh.EDU>
Subject: Re: I Still Say: "Stick It In Your Ear!"

>On Friday 15 March 2002 19:18, KKANALZ@prodigy.net wrote:

>> --- Original Message ---
>> From: Bill Coleman <aa4lr@arrl.net>
>> To: <qrp-l@Lehigh.EDU>
>> Subject: Re: Wooden Separaters in Pariffin
<snip>

Date: Fri, 15 Mar 2002 20:05:35 -0500
From: "Mike, Diane and Vicky" <tignor@attglobal.net>
To: "qrp-l" <qrp-l@Lehigh.EDU>
Subject: [122200] RE: Shortened dipole designs
Message-ID: <LPBBJEBJGENIAJFILJKGIEDACGAA.tignor@attglobal.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Tracy:

You would be surprised at the short lengths that will work if you have a tuner and ladder line or other balanced feeder.

I have been using a forty foot center fed sloper on all bands thru eighty. It is a little tricky on eighty but loads. It is effective on all the other higher bands. I get multiband operation with ease.

Think about it.

Mike

Date: Fri, 15 Mar 2002 20:17:51 -0500
From: "carl seyersdahl" <carlseye@tampabay.rr.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122201] circad
Message-ID: <015c01c1cc88\$646454c0\$29221c18@tampabay.rr.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Does anyone know of a source of info such as a book or software or whatever
where I can get instructions on how to work the circad program???
I have the program but can't figure out where to start!!! any help would be
appreciated!! thanks!
carl / kz5ca

Date: Fri, 15 Mar 2002 20:50:10 -0500
From: Lee Wilson <leesgoofy@usa.net>
To: Low power amateur radio discussion <Qrp-1@Lehigh.edu>,
 Low power amateur radio discussion <Qrp-1@Lehigh.edu>
Subject: [122202] Badger kit
Message-ID: <20020316015010.6688.qmail@uwdvg002.cms.usa.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: quoted-printable

Fellow qrp'rs has anyone in utah who ordered the kit
recieved theres yet?

Yours and 73's

AC7KT

Lee Wilson

Date: Fri, 15 Mar 2002 20:36:19 -0600
From: "Stuart Rohre" <rohre@arlut.utexas.edu>
To: <AQR@yahoogroups.com>, <qrp-1@Lehigh.EDU>
Subject: [122203] Another word description on the Rogers' Folded Conical Helical Antenna
Message-ID: <003001c1cc93\$5af5c6c0\$4e100a0a@rohredt2000>

Apparently some hams have not seen an all metal conical antenna, or Bi Conical, (two cones), and thus are still having visualization issues with this experimental antenna design.

Also, I realize it might be easier for most, and those visually impaired, to first hear of one made of ONE Folded half element. The radiating structures here, are half of a folded dipole. If you cut BOTH center wires of a folded dipole, what is left is the HALF of the folded dipole that gets fed by a coax on this antenna.

The half element, is wrapped around spiral wise on a sloping surface to form a cone. There is no solid surface, just the apparent surface of the wires making up the parallel line. The parallel line sits with the plane of its wires horizontal as they wind around making the cone. The twin line is NOT flat to the slant height.

The challenge, when you build a four folded element model, is on the element supports for the wires, you have to wind the first element in the first pair of wire holes, then skip 3 pairs, and the next turn at that element support for the first wire pair, is down the cone below the skipped 3 pairs of holes. Thus, when you wind the second element it is next to the first turn of the first element, and so on. The third element is below the second, and the fourth element next. The elements will end up evenly spaced around the wide end of the cone if you do things correctly. Making a model of cardboard and string is the way to work this out to your satisfaction, before making the electrical model.

So below, is another description, with more alternate materials suggested for element supports.

Good Luck, and let me know if you get stuck,
72,
Stuart K5KVH

Have you ever seen/felt a sloping ground plane on those VHF antennas from Radio Shack? That is a conical structure made of straight radial elements hanging in parallel around a conical slope. But, this Rogers' antenna has horizontal wires making up the cone by making them spiral around and down the length of the cone slant, called the slant height. That is the 12 inch

dimension. Those wires are actually parallel transmission line, put on in the special way I will describe below.

Let me see if I can describe some tactile model for you. Please send further questions until you get the concept.

I have suggested to many, to build a cardboard model first, to work out your understanding of the conical concept, especially if you do the four element model. But, a one element model is the best first one to do, to see it work.

A cone, as you may know is a sloping pointed object, rising from a circular base. Instead of a narrow point, the cone for this antenna forms an open outlet, (like a funnel has) It is for mounting a coax connector, as the cone antenna is used wide end up, narrow end down over a ground plane. The ground plane is best if 2 m square (about 6 feet on side) of copper screen. But it is easier to describe the cone formation as you build it,-- with wide end down.

Now, the cone surface is imaginary. That is, you have to have a cone shape for what you do with the antenna elements. But there is no material except some wire insulators at the cone edge. We have improved the wires support now.

An easier way to mount the wires than the first model using PVC pipes and nylon tape, is to have plastic or fiberglass triangles. or shellacked plywood, at right angles to make the outline of a pyramid. Narrow end up, wide base down while building. The wide base will become the large diameter of the cone. I would try 1/4 inch plywood, or circuit board thickness fiberglass sheet if you have that. Plexiglas would work, but would be expensive.

Along the sloping sides of the triangles, (four sides), you drill holes for holding the wires. The outer hole of a pair, is for no. 10 pvc insulated copper wire, then 3/8 inch inside toward the center of the triangle, you drill a matching hole for no. 12 copper enamel wire. All along the slant height, you will drill pairs of holes like this. The pair is horizontal. If you build a model of cardboard triangles and string you can visualize, or feel this ant. form.

The two wires form a parallel folded line element, but you can think of them as TV twin lead with one wire larger than the other wire. The spacing between pairs of holes and wires is 3/8 inch horizontally.

The triangles are slotted to slip into each other, and glue together at right angles. Then, start at the narrow, top, pointed end, and wind a no. 12 wire down to base wide part. It has to go thru a hole in each edge of the triangles for four sets of holes. It will wind down as a spiral, one turn below, but spaced, from the one above. Leave a pigtail at narrow top end, for center of coax connector connection. (I am first describing a one folded element antenna

for ease of your understanding, and you can use it as well, as it is better than 50 per cent efficient, while small loops like MFJ are only 10 per cent.)

Now, outside of the no. 12 wire you wound, which was a quarter wave long, (if 10M band, that is 8 1/8 feet of wire), you wind the larger no. 10 wire. It also is left with a pigtail at top for ground plane connection, and is also 8 1/8 feet long, and winds evenly spiraling down to wide base of cone. It will be side by side with each turn of the no. 12, that ends up inside the no. 10 wire spiral.

That is joined at the wide bottom end, to the no. 12 wire, as a folded dipole half element is shorted at its end. Now, you have made a one folded element helix antenna. If you made 3 other folded elements, and had enough holes on the edges of the triangles, you could wind them down at 90 degrees to the start of the first one and each other.

(As you look down on the cone is when you would see each folded line starts 90 degrees around from the first).

This four folded element model is the most efficient, but to get you started, make one with one element to get the idea. Now, to make a four element model, you have to realize that you start the first folded element in the first two holes of the narrow top of the triangle edge. But, you have to leave the next three pairs of holes empty, before bringing the next turn

of the first folded dipole half element around as the second turn. That is because you will be winding the first element in first two holes, the second element in second two holes, and third hole in third pair of holes, and the fourth element in the next pair of holes. Then the sequence starts again with another turn of the first folded element.

If you make the one folded element model, have the one quarter wave line spiral 360 degrees around the cone evenly in the 12 inch slant height. Remember the cone is made 13 inches high, plus your coax connector. The base diameter of the wide base should be 16 inches. The four element model fits much more tightly wound in the same 12 inch slant height. You just drill more holes.

If you were to look down from the top of a cone, ie standing over one, there is a little circle which is the top end of the cone. (like a funnel), and the larger circle is the outside of the wide part of the funnel. Does that concept help? Of course, your winding twin lead made of the two unequal size wires, edge on the cone is what makes the cone "surface". You must provide some support for the two wires that make up two wire cones. Some have suggested using fiberglass rods for wire supports. Maybe those could be notched, and the wire hot glued to them.

I imagine for a first model, plywood triangles that are shellacked would be useable, but I would keep power down to 25 or 50 watts until you determine that nothing is heating up. There is very high electric field at the wide part of the cone, which is upmost in use, and over the ground copper screen plane. You mount the coax connector to your screen and the coax goes below the screen, using a right angle coax connector, or straight down if you elevate the ground plane above physical earth.

Hope this helps some more,
Stuart K5KVH

Date: Fri, 15 Mar 2002 18:36:34 -0800
From: "K7FD N7SG" <k7fd@hotmail.com>
To: qrp-l@Lehigh.EDU
Subject: [122204] Tiny Tornado Photos
Message-ID: <F206zJeK4zScM4xSqvt00012c27@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I finished it, by "George"! Finally. Well almost. Right now I'm troubleshooting the lil' gem. Receiver is sounding mighty dead in my headphones. Hello, anyone in there? It's sure to drive me "bananas" until I get it fixed...

But I have pictures for the "curious"!

<http://w3.cablespeed.com/~cqdx/geo.htm>

Back to the "jungle"...

73 John K7FD

Send and receive Hotmail on your mobile device: <http://mobile.msn.com>

Date: Fri, 15 Mar 2002 21:47:33 -0500
From: "Bill, N4QA" <n4qa@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [122205] DSWTUN95 release 2.00 now showing...

Message-ID: <F8diZJ7grYuMomVaPtz00018478@hotmail.com>

Mime-Version: 1.0

Content-Type: text/plain; format=flowed

Just a short note to say that rel 2.00 is ready for review from:
<http://www.qsl.net/n4qa/>

I need a nap...move over Ellie...aka Ellie Belle,...EB,... B-Dog.

"WOOF!"

73.

Bill, N4QA

MSN Photos is the easiest way to share and print your photos:

<http://photos.msn.com/support/worldwide.aspx>

Date: Fri, 15 Mar 2002 22:01:21 -0500

From: aluscre <aluscre@neo.rr.com>

To: mel@euramcom.freemove.co.uk

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [122206] Parts Storage-Free & Adapters

Message-ID: <3C92B581.5BF0D669@neo.rr.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I also use this plastic film "cannisters" to make all of my in-line wire and cable (not Coax) adapters.

For example- when I need to go from a 1/4 Phono to a RCA plug. I use my hand reamer to make the correct size hole for the 1/4 jack in the lid portion. I then push the jack in from back of lid and put nut on outside of lid to attach it. I then put a small hole in bottom of cannister portion to pass wire through. I pull out enough to easily solder to jack's terminals on the lid. Before soldering I tie a knot in wire to keep it from being pulled out of bottom of cannister. I then solder wire to terminals on jack in lid. After everything cools, I pull any extra wire into cannister and snap on the lid. A very low cost and very quick in-line adapter. Clear containers allow wiring arrangement to be seen. For opaque containers or more complex wiring arrangements (8 pin microphone adapter to allow a yaesu wired mike to be used on a Kenwood rig or visa versa) I use a permanent "sharpie" marker to label cannister as to wiring arrangement and use.

euramcom pages wrote:

> The best things in life are free, and qrp often = free!
> If you have a "one-hour" processing lab in your area, a word with the
> owner/operator will oft times get you a big bagfull of 35mm film
> canisters. The FUJI ones are the best if you can get them, being
> translucent.
> You can see what's inside!

--

|-----|

Anthony A. Luscre

K8ZT

Stow, Ohio

|-----|

Visit My Website at

<http://www.qsl.net/k8zt>

|-----|

Date: Fri, 15 Mar 2002 21:20:07 -0600
From: "Stuart Rohre" <rohre@arlut.utexas.edu>
To: "James R. Duffey" <jamesd1@flash.net>
Cc: <qrp-1@Lehigh.EDU>
Subject: [122207] Cone comparisons to loaded monopole
Message-ID: <006501c1cc99\$78fccaa0\$4e100a0a@rohredt2000>

Jim,

Well there are loaded short monopoles and there are short loaded monopoles.
:-) The figure of merit for short antennas in this $kr \leq 1.0$ class is to
measure the efficiency of radiation by the Wheeler cap. IE, you short out
the field by covering the antenna with a conducting cylinder with one end
closed, open end toward and shorting to the ground plane under the test
article. You make s parameter measurements of the capped antenna and again
with it in open site. The efficiency calculation that comes out of that
shows in excess of 90 per cent over the 3:1 VSWR bandwidth for the 10M model
folded conical helix ONLY 13 inches high.

The ground plane size was picked as typical of some ocean buoys and is
electrically large compared to the smallest buoy ground plane area for HF.

For some similar short, but folded monopoles much shorter than quarter wave,
the efficiency is only 10 per cent or less. Of course, the longer the
loaded element, the more efficient it gets. The coil losses are another

factor. Some ham stick type antennas are much inferior to others in size of wire in the coil. However, there are places where a tall slender loaded whip cannot be used. What if you had a buoy that would tip over if you had a whip antenna on it? With ocean winds and waves, wash over is a concern, and the folded conical helix can be put into a radome to protect it more easily than taller antennas. Not all ham considerations, unless he has a boat, but this was developed first as a seaborne antenna. My thought is that it is good CC&R work around for apartment hams.

What if you have an 8 foot ceiling on the balcony of an apartment house with antenna restrictions, and only a non antenna appearing sculpture on your balcony could be used as your antenna? A little low profile antenna might allow home ham operation.

There are plenty of height restricted applications for the ham. One of these cones up on the roof of a van for 10M would work a lot better than a bumper mounted short loaded whip, or helical monopole. On one van we measured, the best VSWR for bumper mount helical monopole (Ham Stick) was 2:1 rapidly rising to 3:1 over the band, or worse. It had very poor performance in some directions. I think the Outbacker type antennas have been measured at very low efficiencies. I have one for demo purposes, but it is never a star performer. It is a even large for some small cars, (mine).

If you use the two triangle sheets of fiberglass that we now are proposing, the complexity of the helix is lessened. The parallel lines are spiral wound most easily, and if one is only wanting "to see it work", in the same size cone, you can construct the one parallel line model, of same materials, and get over 60 per cent efficiency. The triangles could be bored out, for less wind loading. Even shellacked 1/4 inch plywood supports for the wires would work at QRP and maybe 100 watts, as would masonite and maybe even heavy cardboard shellacked to make it water resistant.

What most have not realized with the four folded elements model for 10M and even for 20M in same size there will be full wavelength of wire in only 13 inch height and fitting in a 16 inch diameter. That is attic sized for many places, if you have a place that is about twice that volume, clear of wires and conductors.

We expect to have to use a transmatch for 40M, we advocate it at 10M. Of course as with any antenna, there is no free lunch, no way to cover all a band with no tuning, when you shrink the thing this much.

Date: Fri, 15 Mar 2002 21:53:59 -0600

From: "George, W5YR" <w5yr@att.net>
To: "qrp-1@Lehigh.edu" <qrp-1@Lehigh.edu>
Subject: [122208] Logs?
Message-ID: <3C92C1D7.483BDBAD@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Any more log corrections for W5YR on the Pesky Texan Armadillo Chase?

--
73/72/00, George W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
QRP-L 1373 NETXQRP 6 SOC 262 COG 8 FPQRP 404 TEN-X 11771 I-LINK 11735
Icom IC-756PRO #02121 Kachina 505 DSP #91900556 Icom IC-765 #02437

All outgoing email virus-checked by Norton Anti-Virus 2002

Date: Fri, 15 Mar 2002 23:34:16 -0500
From: "Dave" <wr3i@earthlink.net>
To: qrp-1@lehigh.edu
Subject: [122209] Another heath-Scope question
Message-ID: <3C9284F8.11327.210BA4@localhost>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-description: Mail message body

A while ago there was a thread on Heathkit scopes. In cleaning my radio area of the basement I have uncovered a Heathkit SO-106A Scope and was wondering if there is any information out there is it worth cleaning up and re-aligning or should I cart it to a hamfest?
Dave
W1QB

Date: Fri, 15 Mar 2002 22:54:28 -0600
From: wa0goz@arrl.net
To: qrp-1@Lehigh.EDU
Subject: [122210] CW problem
Message-ID: <3C92D004.1C8C@arrl.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I'm trying to learn to head copy CW. I can copy with pencil at about 15 wpm now. My problem with head copy is that I don't hear the words, I hear the "melody". That is, if I hear dit dah dah dit dah dit dit, I don't hear A-N-D, or AND, I hear dit dah dah dit dah dit dit. I can go along with a whole tape and "sing" right along with the sounds. I really have to concentrate to hear the letters, but since I'm apparently doing some translation process, by the time the third letter gets to me, I've forgotten the first one or two. This has been driving me crazy for a year or so. I know that until I can start hearing words, I'll never be able to head copy fast.

I've corresponded with a number of hams, including Bill Pierpoint (who wrote a great book on CW), about this problem, and the only solution anyone has is for me to stop trying so hard and relax and just let it come. If I do that, I can really get into the "music" of the tones.

Anyone have any experience with this type of problem or any suggestions as to how to overcome it? All help is appreciated.

73/72

Henry WA0GOZ

P.S. I get QRP-1 in digest form, so I won't be able to answer until after that comes out.

Date: Fri, 15 Mar 2002 23:32:20 -0600
From: MIKE SOUHRADA <wb9iog@revealed.net>
To: wa0goz@arrl.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122211] Re: CW problem
Message-ID: <3C92D8E4.F8E5E3F@revealed.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

wa0goz@arrl.net wrote:

>
> I'm trying to learn to head copy CW. I can copy with pencil at about 15
> wpm now.
> My problem with head copy is that I don't hear the words, I
> hear the "melody".
> That is, if I hear dit dah dah dit dah dit dit,
> I don't hear A-N-D, or AND, I hear dit dah dah dit dah dit dit.

Henry

Interesting problem.

First, I'm not a speed demon on CW since my hearing has gone sour.

However, I hear the content of what's sent. I DON'T listen for dits etc. I hear the letters, which combine into a word.

Possibly 15 WPM is too slow?? Try a faster rate to grab the flow.

During contests my speed goes up to 25-30 WPM after a few hours.

The advice is good let it come.

The attempt to get "music" from code concerns me. Some guys have trouble getting code because they don't have a musical sense, others do because of it. I play a piano and it does help. But, can you go overboard? I think it's possible. Your comment re singing along leads to this conclusion. Stop singing and listen for the word.

Start with simple things, ie. name, city, state, equipment, antennas, all very common CW communications. I think if you have some success that way the rest will develop a bit easier.

My best shot.

Mike

Iowa

> Henry WA0GOZ

>

> P.S. I get QRP-1 in digest form, so I won't be able to answer until

> after that comes out.

Date: Fri, 15 Mar 2002 23:36:16 -0600

From: "George, W5YR" <w5yr@att.net>

To: wa0goz@arrl.net

Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Subject: [122212] Re: CW problem

Message-ID: <3C92D9D0.F9708D22@att.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Henry, I would try listening to a higher code speed where AND will lose the sound of individual letters A N D and start sounding like a single sound event which you will quickly pick up as AND.

I suspect that the most defeating mistake that folks make learning the code is scaring themselves away from listening to code going fast enough to really "talk." A friend and I were talking the other night while listening

to a 5-wpm QSO and we both were having trouble reading the QSO without writing down the characters for the same reason as you gave: we couldn't remember the characters long enough to piece together the words. Of course, both of us being over 70 might have had something to do with it! <:}

Good luck, my friend - you will get there!

73/72/00, George W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
QRP-L 1373 NETXQRP 6 SOC 262 COG 8 FPQRP 404 TEN-X 11771 I-LINK 11735
Icom IC-756PRO #02121 Kachina 505 DSP #91900556 Icom IC-765 #02437

All outgoing email virus-checked by Norton Anti-Virus 2002

wa@goz@arrl.net wrote:

>
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> I don't hear A-N-D, or AND, I hear dit dah dah dit dah dit dit. I can
> go along with a whole tape and "sing" right along with the sounds. I
> really have to concentrate to hear the letters, but since I'm apparently
> doing some translation process, by the time the third letter gets to me,
> I've forgotten the first one or two. This has been driving me crazy for
> a year or so. I know that until I can start hearing words, I'll never
> be able to head copy fast.
>
> I've corresponded with a number of hams, including Bill Pierpoint (who
> wrote a great book on CW), about this problem, and the only solution
> anyone has is for me to stop trying so hard and relax and just let it
> come. If I do that, I can really get into the "music" of the tones.
>
> Anyone have any experience with this type of problem or any suggestions
> as to how to overcome it? All help is appreciated.

Date: Fri, 15 Mar 2002 23:45:35 -0700
From: "P.Ermisch" <ermisch@usa.net>
To: <qrp-l@Lehigh.EDU>
Subject: [122213] Re: [CW problem]
Message-ID: <20020316064535.6446.qmail@uadvg137.cms.usa.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: quoted-printable

I have the same problem and the only thing I figure is that it takes practice.

I can copy pretty easily in my head at 15wpm but fall back into 'hearing the melody' fairly often. The best thing I've found is to use the suggestion from "The Art and Skill of Radio Telegraphy" was to form a picture of the word in my mind as it's being formed.

If I can copy about 60% to 75%, I can usually figure out what's being said. =

It also depends on the sender's fist. Good letter spacing makes a lot of difference, of course, but (for me, at least) there's a fine line between good spacing and lousy spacing.

As far as 'head copy' success, listening while driving was great practice =2E =

That really forces you to listen since you can't grab the pencil and paper.

Paul KB0LUR

wa0goz@arrl.net wrote:

> I'm trying to learn to head copy CW. I can copy with pencil at about 15

> wpm now. My problem with head copy is that I don't hear the words, I hear the "melody". That is, if I hear dit dah dah dit dah dit dit, I don't hear A-N-D, or AND, I hear dit dah dah dit dah dit dit. I can

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> =

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> =

> Anyone have any experience with this type of problem or any suggestions=
> as to how to overcome it? All help is appreciated.
> =

> 73/72
> =

> Henry WA0GOZ
> =

> P.S. I get QRP-1 in digest form, so I won't be able to answer until
> after that comes out.

Date: Sat, 16 Mar 2002 00:52:23 -0800
From: "Trevor Jacobs" <fxtech@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [122214] DDS Update...SMK-1 meets DDS VFO meets Tick Keyer!
Message-ID: <00d301c1ccc7\$e420d640\$629ab2d1@tjacobs>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Everyone,

Well, I got the prototype DDS VFO boards back from AP Circuits last week and am happy to report that they work real well! I must say that for the money AP Circuits does a great job and very fast! Today, I had a bit of spare time (very unusual these days), and was going to build the SW-40+ kit to test out the DDS with, but didn't have time today, so I decided to play with my SMK-1 instead. I've had a Tick 1 chip waiting to go into the SMK-1 for a while, so I breadboarded that up this afternoon, and also hooked up the DDS VFO to the SMK-1. I had already modded the SMK-1 for external VFO about a year or so ago and also had increased the power output to around 2 watts max. Well, I'm happy to report that I had my first QSO on it this evening. I'd been spending a bit of time with the YL, and as she was going to bed, I decided to see if I could find anyone on the air. Well, I heard Jack W6ABC (Nice Call!) calling CQ so I though I'd give him a shout. Had a nice (but quick - we were both tired) qso from Burbank to Oakland. He was using an FT-817 and a very low flying

dipole (5 feet if I copied that right!), and that was hard to believe, because he sounded like he was in the neighborhood! Solid 599. When I first heard the call, I thought that he may be over at ABC and I was going to ask if they had a HAM Club. Anyway, was a nice QSO. The DDS puts out about 1 volt peak to peak into a 50 ohm load, by the use of a Mini Circuits ERA-1SM MMIC. Dave WD4PLI and I will be looking at the spectral purity on an analyzer this weekend, so I'll pass on what we find. Been a fun project so far. I may build the SW-40+ up minus the VFO and TX mixer tomorrow as I'd really like to put this little guy through it's paces. Besides, that's probably the next best thing to a new DSW, Hi! Take care...

72/73's
Trev
KG6CYN

Date: Sat, 16 Mar 2002 01:49:46 -0800
From: "Trevor Jacobs" <fxtech@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [122215] Re: DDS Update...SMK-1 meets DDS VFO meets Tick Keyer!
Message-ID: <00db01c1cccf\$e850f1c0\$629ab2d1@tjacobs>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Let me Update that again...Just as I hit send I heard as station calling CQ and responded. Had a very nice chat with Dwayne VE7DRC on Vancouver Island,BC!! I think it was a bit of a rough copy for him, but he stuck in there great, and we got the basics exchanged. I was running 1 watt on both QSO's, and my antenna is sagging (I let some of the tension out of it) due to all the really high winds we've been having over the last few days. Just hope my favorite antenna tree doesn't come down as a few others around here have!

72/73's
Trev
KG6CYN

----- Original Message -----
From: Trevor Jacobs <fxtech@earthlink.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Saturday, March 16, 2002 12:52 AM
Subject: DDS Update...SMK-1 meets DDS VFO meets Tick Keyer!

> Hi Everyone,
>
> Well, I got the prototype DDS VFO boards back from AP Circuits last
week
> and am happy to report that they work real well! I must say that for
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VFO
> and TX mixer tomorrow as I'd really like to put this little guy
through
> it's paces. Besides, that's probably the next best thing to a new DSW,
> Hi! Take care...
>
> 72/73's
> Trev
> KG6CYN
>
>

Date: Sat, 16 Mar 2002 12:07:13 +0100
From: "Ingo, DK3RED" <dk3red@t-online.de>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [122216] Re: CW problem
Message-ID: <3C932761.46FDCA00@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello Henry,

See on Chuck Adams' (K7Q0) homepage at

<http://www.qsl.net/k7qo/qrpqpart1.html>
<http://www.qsl.net/k7qo/qrpqpart2.html>

and practice practice practice. ;o)

--

72/73 de Ingo, DK3RED Don't forget: the fun is the power!
 dk3red@t-online.de <http://www.qsl.net/dk3red>
 DL-QRP-AG #824 <http://www.dl-qrp-ag.de>

Date: Sat, 16 Mar 2002 03:51:59 -0800 (PST)
From: Patrick Gardella <pgardella@yahoo.com>
To: njqrp@njqrp.org, ". Eastern PA QRP Club" <EPA-QRP@yahoogroups.com>,
 QRP-L <qrp-l@Lehigh.EDU>
Subject: [122217] Re: [NJQRP] How to change Badger smartbadge software
Message-ID: <20020316115159.20616.qmail@web13007.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Ouch! *Buy* a piece of hardware?!?

Why not simply build a programmer? I figure I've got about three homebrew PIC programmers here, so why not an SX one? Right after I built my Badger, I went out and looked for possible projects.

Here are two that looked fairly good:

The "Fluffy" programmer - <http://www.semis.demon.co.uk/Sx/SXmain.htm>

The "Steele" programmer - <http://members.rotfl.com/dturner/sxbufled.zip>

I've ordered parts for the Fluffy, since it uses the same software as one of my PIC programmers.

I'll let you all know how it comes out. I'll have it done by Atlanticon (hopefully!)

Patrick
KD4LOX

--- George Heron N2APB <n2apb@erols.com> wrote:
> With the "Badger" SmartBadge Kit now getting successfully put together by
> many people, we're getting a bunch of questions like "How can I load it with
> my own custom software?"
>
> The answer is "pretty simply" ...
>
> For \$79 you can buy the SX-Blitz programmer cable from the SXTech site at
> Parallax.com. http://www.parallaxinc.com/html_files/sxtech/sxtech_home.htm
>
> Just plug one end of the SX-Blitz into your PC's serial port and the other
> directly into the Badger, and you'll be able to edit & assemble the source
> code files posted on the Badger website, and then burn it into the chip on
> your smartbadge. Change the callsign, put some other message into the
> Badger or do something entirely different with your smartbadge!
>
> A procedural description of for the programming of SX chips is given at the
> website for my QRP Quarterly "Digital QRP Homebrew" column. This can be
> found
> at <http://www.njqrp.org/digitalhomebrewing/psk31beacon/psk31beacon.html> ...
> see the menu selections along the left side of the page.
>
> 73, George N2APB
> n2apb@amsat.org
>
>
>
> ===== NJ QRP Club Mailing List =====
> To unsubscribe from this list, send email to listserver@applegate.org
> and put the text "unsubscribe njqrp" in the message. To post a
> message to the list, send email to njqrp@njqrp.org.

Do You Yahoo!?
Yahoo! Sports - live college hoops coverage
<http://sports.yahoo.com/>

Date: Sat, 16 Mar 2002 07:34:18 -0500
From: "N3BJ" <alanfryer@msn.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122218] PSK-80 Warblers Sold
Message-ID: <001e01c1cce6\$e6359460\$ebe0c943@hppav>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The PSK-80 Warblers listed yesterday are both sold.

Alan, N3BJ
Bent Mountain, VA

Date: Sat, 16 Mar 2002 07:04:49 -0600
From: "N1LN" <n1ln@earthlink.net>
To: "QRP-L" <qrp-1@lehigh.edu>
Cc: "K5VUU - George" <k5vuu@arrl.net>
Subject: [122219] Pesky - Texan Armadillo Logs
Message-ID: <017c01c1cceb\$2877b840\$6479fea9@im02>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Hi there all you Chasers ! ! !

Thanks for the great time and your help in making this event MUCH better than last year. We had Chasers from all over the States - Canada and even (1) from Puerto Rico. And conditions seemed good - at least from this end.

All 20 Armadillos were on the air and ready. Those of you that worked all 20 and are interested in receiving a "Worked All Pesky Texan Armadillos" certificate please send a copy of your log and \$ 1.00 to me at:

Bruce Meier - N1LN
15283 Runnymede St.
Conroe, TX 77384

I will validate your Qs - and get the certificate right out to you.

The Armadillos are sending their logs in - so far I have 13 of the 20.
Some are
posted on the QRP-L reflector - but.... if you would like to see them all in
one
place, please check out:

<http://www.k5vuu.com.ptzc>

There you will find the logs on the Armadillo Roster link. The current
standings for
the highest scoring Armadillo is also listed. Simply click on the
Armadillo's Call.

While there - check out the certificate.

The Chasers that had a sweep and sent in their logs for validation will also
be posted.

A BIG THANKS to George - K5VUU for the WEB work

As always - if you have any questions please send me an email:
n1ln@arrl.net

Thanks again - and see you next year. As of now - the second Wednesday in
March 2003 will be the next Pesky Texan Armadillo Chase.

72,

Bruce - N1ln

Date: Sat, 16 Mar 2002 06:53:34 -0700
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>,
"cqc-1" <CQCLIST@yahoogroups.com>
Subject: [122220] Good CW Procedure Article on ARRLWeb
Message-ID: <[000501c1ccf1\\$f7d28c40\\$6401a8c0@greyrock](mailto:000501c1ccf1$f7d28c40$6401a8c0@greyrock)>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Something good to read, print out, and re-read now and again.

<http://www.arrl.org/news/features/2002/03/17/1/?nc=1>

73, Rod N0RC
Ft Collins, CO

Date: Sat, 16 Mar 2002 09:00:45 -0500
From: "Tom Curtola" <tcurtola@rogers.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122221] PICs and Microcontrollers Questions
Message-ID: <002801c1ccf2\$f86e1380\$f44a9c18@bloor.phub.net.cable.rogers.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Dear Microcontroller Programmers,

The last few years I've been noticing microcontrollers being incorporated into our hobby more and more. Keyers, frequency counters/synthesizers, etc. I've been wanting to learn more about these devices for a while now. Doing some reading on the internet, I have found a plethora of information on them, but still have some very basic questions concerning their history and any personal opinions on these devices. More specifically... here goes:

- 1) Is a "PIC" just a brand name for one of many different brands/manufacturers of microcontroller? I hear the name thrown around a lot, is it the "Kleenex" of microcontrollers, that is to say, has become a generic name?
- 2) Does each different brand or manufacturer use their own programming language for their specific device?
- 3) When starting out, is there a favorite manufacturer and/or programming language for beginners? I've seen that many companies offer their own starter kits.
- 4) Does the Ham community of microcontroller gurus have a favorite manufacturer and/or programming language? I would like to learn on the family of chips and/or programming language that is most prevalent in the Ham community.

Thank you for any help you can provide.

Tom Curtola
VA3TY

Toronto, Ontario - Canada
tcurtola@rogers.com

Date: Sat, 16 Mar 2002 14:13:35 +0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: tcurtola@rogers.com, qrp-1@Lehigh.EDU
Subject: [122222] Re: PICs and Microcontrollers Questions
Message-ID: <F84tneqdGSyMp69YDqS00005a42@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

[deleted]

>1) Is a "PIC" just a brand name for one of many different
>brands/manufacturers of microcontroller? I hear the name thrown around a
>lot, is it the "Kleenex" of microcontrollers, that is to say, has become a
>generic name?

PIC stands for something like Programmable Interface Controller and was originally designed by General Instrument as an I/O device for their 16-bit CPU. It was subsequently developed as a microcontroller by Microchip, who still make them.

>
>2) Does each different brand or manufacturer use their own programming
>language for their specific device?

They all have their own different architectures and instruction sets, and hence the assembly language is different for each manufacturer's range. High-level languages like C are available and are processor-independent, to a large extent.

>
>3) When starting out, is there a favorite manufacturer and/or programming
>language for beginners? I've seen that many companies offer their own
>starter kits.

You'll probably find the Atmel AVR the easiest to work with, as a beginner. It has a decent architecture, unlike the PIC, which can be very confusing for a beginner. Starter kits are quite cheap, or you can build your own hardware. I've got some tips on my web site.

>
>4) Does the Ham community of microcontroller gurus have a favorite
>manufacturer and/or programming language? I would like to learn on the
>family of chips and/or programming language that is most prevalent in the
>Ham community.

PICs and AVR's seem to be most popular, programmed in assembler. Assembler development tools are available free from Atmel and Microchip.

73, Leon

--

Leon Heller, G1HSM Tel: +44 1327 359058 Email:leon_heller@hotmail.com

My web page: http://www.geocities.com/leon_heller

My low-cost Altera Flex design kit: <http://www.leonheller.com>

MSN Photos is the easiest way to share and print your photos:
<http://photos.msn.com/support/worldwide.aspx>

Date: Sat, 16 Mar 2002 09:20:44 -0500
From: Jim Eshleman <jce0@Lehigh.EDU>
To: jce0@Lehigh.EDU
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122223] Re: Wire Antenna materials your VIEWS?
Message-ID: <3C9354BC.1080408@Lehigh.EDU>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

> I like the #13 insulated copper-clad steel (19 strand, I think) that
> most vendors sell.

Duh. I should say why I like it.

- It is said (somewhere) that insulated wire is quieter vs. bare wire that has become oxidized/pitted/corroded/whatever.

- This wire is insulated w/black low-gloss PE coating, which is somewhat stealthily and very tough.

- Copper-clad steel (CCS) is 2.5 times as strong as hard-drawn copper. See the table in the ARRL Antenna Book (and maybe the Handbook) where #14 CCS has a recommended tension of 50lbs and hard-drawn copper 20lbs. The recommended tension is one-tenth of the breaking load.

- I didn't like the idea of 168/259/whatever very small strands of

copper in the Flex-Weave. Seemed to me that the stands would break easily if stressed frequently.

- In my experience CCS stretches much less than hard-drawn copper.
- In my experience the PE coating has not hardened and chipped-off.

My experience is limited to a 40M dipole strung between to 35-40ft pine trees, no pulleys or counterweights, and RG58 hanging from the center, so it gets well-stressed when the wind howls. And don't forget the PA acid-rain which hasn't affected the PE coating that I can tell. This antenna has been up about 4 years. YMMV of course...

73

Jim N3VXI

Date: Sat, 16 Mar 2002 09:35:05 -0500
From: "N3BJ" <alanfryer@msn.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122224] FS: SW40+ w/RIT (Reduced)
Message-ID: <000b01c1ccf7\$c5d762a0\$c7e0c943@hppav>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

For Sale:

SWL SW40+ w/RIT in factory enclosure. Nice shape, works fine, with original documentation.

\$80.00 shipped

Alan, N3BJ
Bent Mountain, VA

Date: Sat, 16 Mar 2002 09:52:10 -0500
From: "Jeff Davis" <n9avg@att.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122225] Re: Good CW Procedure Article on ARRLWeb
Message-ID: <004601c1ccfa\$27aca240\$9800a8c0@N9AVG>
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

It is a good article and it would be nice if we would all take just a few seconds to drop a note to the author and copy the ARRL to let them know that we liked it.

72 de Jeff, N9AVG

----- Original Message -----

From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Saturday, March 16, 2002 8:53 AM
Subject: Good CW Procedure Article on ARRLWeb

Something good to read, print out, and re-read now and again.

<http://www.arrl.org/news/features/2002/03/17/1/?nc=1>

73, Rod N0RC
Ft Collins, CO

Date: Sat, 16 Mar 2002 06:53:44 -0800 (PST)
From: Patrick Gardella <pgardella@yahoo.com>
To: tcurtola@rogers.com,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122226] Re: PICs and Microcontrollers Questions
Message-ID: <20020316145344.37282.qmail@web13007.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Good questions!

PIC is a brand name for the Microchip.com microcontrollers. PIC used to stand for "Programmable Input Controller" (or something close.) There are "clones" (like the ubicom.com SX), but they have tended to spin off into their own lines. So when you hear PIC, they mean PIC. And there are lots of different types of PICs, depending on if you need I/O, A/D conversion, etc. A very common one is the 16F84, or if you want to spend a dollar or so more, you could

grab a 16F877.
More capable.

TyPICally, there is an assembly language for each microcontroller. It's not too tough if you are familiar with computer programming. But you can get many other languages for them. I prefer Forth, but that's just because I'm weird. You can get Basic, C, macro assemblers, etc. Some are free, some cost. I like the free. A simple web search for say "PIC Basic" will find them.

I'd suggest starting to learn the assembler. It's the most common language.

Starter kit? I'd skip it. You can get PIC books all over the place. I'd start with building a PIC programmer first, then another Ham kit (CW decoder, CW sender, etc). With your own programmer, you don't have to buy the expensive programmers (but more full featured).

One of the easiest PIC programmers is the NOPPP (No Parts Pic Programmer), <http://www.covingtoninnovations.com/noppp/> No parts meaning you might not have to buy any parts.
Works well.

Another for the 16F877 is the Wisp or WLoader: <http://www.voti.nl/wloader/>

The SX chips are more powerful (or so it seems, but less common).

Let me know if you have other questions.

Patrick
KD4LOX

--- Tom Curtola <tcurtola@rogers.com> wrote:
> Dear Microcontroller Programmers,
>
> The last few years I've been noticing microcontrollers being incorporated
> into our hobby more and more. Keyers, frequency counters/synthesizers, etc.
> I've been wanting to learn more about these devices for a while now. Doing
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> manufacturer and/or programming language? I would like to learn on the
> family of chips and/or programming language that is most prevalent in the
> Ham community.
>
> Thank you for any help you can provide.
>
> Tom Curtola
> VA3TY
> Toronto, Ontario - Canada
> tcurtola@rogers.com
>
>

Do You Yahoo!?
Yahoo! Sports - live college hoops coverage
<http://sports.yahoo.com/>

Date: Sat, 16 Mar 2002 07:54:21 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: Stuart Rohre <rohre@arlut.utexas.edu>
Cc: <qrp-1@lehigh.edu>
Subject: [122227] Re: Cone comparisons to loaded monopole
Message-ID: <B8B8AAAD.13015%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Stuart - Thanks for the reply. I am sorry if you misunderstood my intentions. It was not my intent to criticize the new antenna or imply that the data was bogus. The point of my post was to see how the performance compared to other short loaded antennas. That is why I asked about the efficiency measurements.

I am aware of the Wheeler Cap method of measuring efficiencies and its

widespread use in the short antenna community. It is a good solid time tested technique. I am also aware of the low calculated efficiencies of short antennas. I just would have liked to see a measurements of the new antenna compared to measurements of a more conventional short loaded antenna. This would have helped to ascertain if the complexity of the new antenna is worth the additional efficiency. That is, what I was seeking was an apples to apples comparision, not a measured to estimated comparision.

When new technology is introduced it is always nice to measure the claims of improvement against conventional technology to see how much is actually being gained. That is why I asked about comparable measurements over a short loaded monopole. Now I realize that doesn't adequately describe the antenna I would like it compared to, but lets say for comparision sakes; a rather thick monopole (2 inches or more) of the same height as the new antenna, loaded at the top with a disc the same diameter as the new antenna, perhaps augmented by a high quality inductor (say $Q > 200$ or more) connecting the disk to the monopole to provide additional loading, and fed over the same ground. Getting away from monopoles, there are other loaded structures using the same impedance transformng method of varying diameter conductors that might be usefule to comapre it to.

Do you have a good idea of what the ground resistance of the 6 foot square ground plane being used at 10 M is?

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 16 Mar 2002 08:00:28 -0700
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [122228] WAS ans ARRL Awards
Message-ID: <000e01c1ccfb\$50220930\$6401a8c0@greyrock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Folks,

WAS: Job done, received a card for my DE contact yesterday.
Thanks to all on QRP-L who helped by sending a card. 80% or more of my cards are from QRP-L members!

Now it's time to apply for the award. Checking the ARRL

website I see I have to submit the cards and an application for inspection. Understandable, here is what it will cost:

WAS application:	\$10	(cards must be submitted for inspection)
postage:	8	(two way, traceable, est.)

	18	(subtotal)

And money already spent:

50-100 QSL cards	10	(min estimate, 50 min but not every card is answered)
postage for cards	20	(gross estimate inc. SASE)
envelopes	2	(est)

GRAND TOTAL:	\$50	(approx est. probably more)

I will complete the process for this certificate as a matter of principle. I committed to doing this long ago, and will honor that commitment.

This will be my last consummated paper chase. I have higher priority usage for my \$50.

For me it boils down to a question of: achieving a milestone such as WAS, or achieving AND certifying that milestone. I am satisfied with the achievement alone.

As I wrote long ago, my principle mode of QSL will be eQSL, <http://www.eQSL.cc>. It is a better (more economical/convenient for me) way. It will not, nor should not, replace paper QSL cards. (I will always respond in kind to a paper QSL card) I have considered the "forgery" question of eQSLs. I have decided that if passable currency can be reproduced on home computing equipment, so can QSL cards.

I offer this analysis, especially to the new members of the amateur radio operator community, in the hope that it will help with your decision on how to approach the "Awards Question".

73, Rod NØRC
Ft Collins, CO

Date: Sat, 16 Mar 2002 07:02:46 -0800
From: "K7FD N7SG" <k7fd@hotmail.com>
To: bdh@cyberbound.net, qrp-1@Lehigh.EDU
Cc: jnovello@teleport.com
Subject: [122229] Tiny Tornado - UP AND RUNNING!!
Message-ID: <F237cXrbw8b9ezf9CIE00014894@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

GOT IT! The keying line was reversed! My board didn't have a + or - on it...and I like a dummy I had the hotside going right to ground! Oops!

AND, get this: N6ORT was my FIRST qso just moments after powering up! He got my call and said "you're very weak". HI! Hey, he got my call, so I'm putting in the book!!

On my OHR WM-2 I show exactly 200mw with a 9v battery I found in my junk box...probably half dead ;)

Surprise: The receiver is HOT!! Wide, but HOT! The filter between the ears will definitely get a work out, hi!

OK, QRP breakfast this morning...gotta take Curious George to the meeting to show and tell...

Brice, thanks for your quick response and attention to my troubles...

73 John K7FD
w3.cablespeed.com/~cqdx/geo.htm

>From: "Brice D. Hornback" <bdh@cyberbound.net>

>If you're getting more than just a couple mW out... then you're stuck keyed
>down. When you're keying, the audio from the LM386 is muted. This sounds
>like what's happening. Check your keying circuit with a multimeter. See
>if

>it's actually closing the circuit when you key (power off of course). My
>"guess" is the key jack is wired wrong. I usually do that about every
>other

>time I connect one! hi hi The rig keys by shorting the key line to
>ground.

>You can check to see if you have continuity between the sides of your key
>with the key open.

>

>I'll be out for most of the day today but I'll check my email once I get
>back later this afternoon. Don't worry... we'll get it figured out.

>
>73/72/71! de Brice KA8MAV

Join the world s largest e-mail service with MSN Hotmail.
<http://www.hotmail.com>

Date: Sat, 16 Mar 2002 10:13:14 -0500
From: "Brian Murrey" <brian@iquest.net>
To: <rod@n0rc.com>,
 "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [122230] Re: WAS ans ARRL Awards
Message-ID: <002d01c1ccfd\$18916ae0\$fb372bd1@bmurrey2K>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Rod...

I finished my 40m WAS about January of 2000. The cards are still
sitting here.

I know I did it. I guess that's all that matters to me. <grin>

BUT...I was looking on the ARCI page and you don't have to send the
cards in for their WAS.

I think the Flying Pigs QRP are about to offer a WAS deal as well.

----- Original Message -----
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Saturday, March 16, 2002 10:00 AM
Subject: WAS ans ARRL Awards

> Folks,
>
> WAS: Job done, received a card for my DE contact yesterday.
> Thanks to all on QRP-L who helped by sending a card. 80% or
> more of my cards are from QRP-L members!
>

> Now it's time to apply for the award. Checking the ARRL
> website I see I have to submit the cards and an application for
> inspection. Understandable, here is what it will cost:
>
> WAS application: \$10 (cards must be submitted
> for inspection)
> postage: 8 (two way, traceable, est.)
> -----
> 18 (subtotal)
>
> And money already spent:
>
> 50-100 QSL cards 10 (min estimate, 50 min but not every
> card is answered)
> postage for cards 20 (gross estimate inc. SASE)
> envelopes 2 (est)
> -----
> GRAND TOTAL: \$50 (approx est. probably more)
>
> I will complete the process for this certificate as a matter of
> principle. I committed to doing this long ago, and will honor
> that commitment.
>
> This will be my last consummated paper chase. I have higher
> priority usage for my \$50.
>
> For me it boils down to a question of: achieving a milestone
> such as WAS, or achieving _AND_ certifying that milestone. I am
> satisfied with the achievement alone.
>
> As I wrote long ago, my principle mode of QSL will be eQSL,
> <http://www.eQSL.cc>. It is a better (more economical/convenient for
> me) way. It will not, nor should not, replace paper QSL cards.
> (I will always respond in kind to a paper QSL card) I have
> considered the "forgery" question of eQSLs. I have decided that
> if passable currency can be reproduced on home computing
> equipment, so can QSL cards.
>
> I offer this analysis, especially to the new members of the
> amateur radio operator community, in the hope that it will help
> with your decision on how to approach the "Awards Question".
>
> 73, Rod NØRC
> Ft Collins, CO
>
>
>
>

Date: Sat, 16 Mar 2002 10:12:05 -0600
From: W2EB <w2eb@twcnny.rr.com>
To: qrp-1@lehigh.edu
Subject: [122231] Re: PICs and Microcontrollers Questions
Message-ID: <3C936ED5.836AE437@twcnny.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Tom,

Funny you should ask. I've been working on a PIC project recently.
>From what I've seen, the Microchip PICs have the most literature
available on the internet. A quick Google search for "PIC Programming"
will turn up several hundred sites for you. A search on "PIC Tutorial"
will also turn up many useful sites for beginners.

Now, to the rest of the group at large....

I'm having a problem with my PIC circuit trying to read an external
ADC. Anyone with experience at manipulating I/O ports that's willing to
answer a question?

73,

Bill
W2EB

Date: Sat, 16 Mar 2002 09:30:32 -0600
From: "N1LN" <n1ln@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [122232] Pesky - Texan Armadillo Logs (update)
Message-ID: <004901c1ccff\$83769cc0\$3e97fea9@im02>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

OK.... so it was early and I typed the URL wrong :-)

SORRY

Here is the corrected URL:

<http://www.k5vuu.com/ptac/>

72 -
Bruce

Date: Sat, 16 Mar 2002 15:40:46 +0000
From: Larry Cahoon <lejek@erols.com>
To: rod@n0rc.com,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [122233] Re: WAS ans ARRL Awards
Message-ID: <5.1.0.14.0.20020316153914.0224bfa0@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Rod,

There are ways to get the cards checked locally. Their DX checkers should be able to do it. I used what they called an official checker from an ARRL affiliated club. I never sent them any cards direct for WAS.

73 de Larry.....WD3P in MD
<http://www.qsl.net/wd3p/>

At 08:00 AM 3/16/2002 -0700, Rod N0RC wrote:

>Folks,

>

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>(I will always respond in kind to a paper QSL card) I have
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>amateur radio operator community, in the hope that it will help
>with your decision on how to approach the "Awards Question".
>
>73, Rod NØRC
>Ft Collins, CO

Date: Sat, 16 Mar 2002 15:41:47 -0000
From: "WI8W" <wi8w@arrl.net>
To: <qrp-l@lehigh.edu>
Subject: [122234] QRP WAS Awards
Message-ID: <029b01c1cd01\$15421c00\$6501a8c0@attbi.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

All,

Brian you are absolutly right. You do not have to

send in your cards for the awards from QRPARCI.

All is required is a GCR list signed by two amateurs of General class or higher indicating that they have inspected your cards and certify that they are correct. This form is available on the QRPARCI website at www.qrparci.org

Many who have applied for the awards have also included photocopies of both sides of the cards instead of the GCR list. I would like to repeat that sending your original cards is not necessary and it is strongly recommended that you do not send them to me. I nor will QRPARCI will be responsible should anything happen to them if you send them to me and they are lost or destroyed.

Many years ago I sent 150 cards to the ARRL to get an endorsement for my DXCC certificate. I sent them via Registered Mail and they promptly disappeared. They were never received by the ARRL and no trace of them have ever been found. A lot of those cards are not replaceable. Sending original cards is strongly discouraged at least by me. I have not sent for any award from ARRL that requires original cards. I have them field checked instead. Once bitten, twice shy.

I would also like to mention that the Awards Program of QRPARCI does accept electronic QSL's as proof of a contact. I have never had a problem with any forged or phony verifications.

www.eqsl.cc

73

Thom Durfee
Awards Manager QRPARCI

Date: Sat, 16 Mar 2002 10:47:48 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>

To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Cc: <tcurtola@rogers.com>
Subject: [122235] Re: PICs and Microcontrollers Questions
Message-ID: <053201c1cd01\$edced0e0\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

A couple of things to add to the info everyone else has provided....

While each different brand of microcontroller has it's own assembler, most of MicroChip's PICs share the same assembler. There are obviously slight differences in memory, I/O, and even instruction width, but they all share the same 35 instructions.

The PIC happens to be a Harvard architecture part. Most of the other brands are the more traditional von Neumann architecture. The Harvard architecture may seem a little weird at first, but it ends up not really making much difference when you are programming an embedded application. It does contribute to making the PIC one of the least expensive.

You may find Basic or C or whatever a little easier to learn, but the very popular 16F84 is a pretty limited part, and a high level language will put more pressure on the part's very limited resources. On the other hand, the sorts of things you would want to do with a PIC tend to be a little easier in assembler, anyway.

I would suggest if you are pretty much clueless about computers, go dive into the assembler. It's a lot like designing with 7400 series logic and not really hard at all. On the other hand, if you already speak C or Basic, and no assembler of any sort, then you may find the assembler pretty counterintuitive, and something like a Basic STAMP or one of the micro C compilers may be a better choice.

As far as I can tell, if you want to use something other than the 16F84, you may well have to think through your own programmer, or pay a fairly high price for a commercial programmer. Programming these things isn't all that tough, and MicroChip has some example circuits on their site, so designing your own programmer isn't all that reasonable. In fact, MicroChip has a lot of info about programming the device while it's in the target circuit, which could be a good way to go. On the other hand, the Covington programmer works well for the 16F84 and you would have to have a pretty sorry junkbox to NOT have the parts laying around.

BUT, compared to some of the newer parts, the 16F84 is pretty limited and expensive (well, not like \$6 is going to break you!) The support circuitry is close to nonexistent for any of them, so converting a circuit you find

online to another part isn't rocket science. But you may be comfortable starting out duplicating someone else's project, and there are more examples on the web for the '84 than anything.

I have some examples on my web site - look at the NoPPP, CW reader, and counter pages. I also have some tutorial information and more links on the Midland Club web site, <http://www.qsl.net/w8kea/>, look in the meeting notes.

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

----- Original Message -----

From: "Tom Curtola" <tcurtola@rogers.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Saturday, March 16, 2002 9:00 AM
Subject: PICs and Microcontrollers Questions

Date: Sat, 16 Mar 2002 10:51:07 -0500
From: David Hinerman <wd8civ@worldnet.att.net>
To: qrp-l@lehigh.edu
Subject: [122236] Re: PICs and Microcontrollers Questions
Message-ID: <3.0.6.32.20020316105107.0079cc80@postoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 09:00 AM 3/16/02 -0500, you wrote:

>them, but still have some very basic questions concerning their history and
>any personal opinions on these devices. More specifically... here goes:

Tom,

I'll give it a shot - I do embedded controller programming for a living as well as a hobby.

>1) Is a "PIC" just a brand name for one of many different
>brands/manufacturers of microcontroller? I hear the name thrown around a
>lot, is it the "Kleenex" of microcontrollers, that is to say, has become a
>generic name?

"PIC" is a line of microcontrollers manufactured by Microchip Corporation. There are other popular controllers made by Atmel (th AVR line), Philips, and others.

PICs are popular because they have memory on the processor chip for storing a program (as do other parts) and come in a variety of packages - including 8-pin DIPs. They are also quite inexpensive.

>2) Does each different brand or manufacturer use their own programming language for their specific device?

You could say that. The basic "language" for programming any processor is called "assembly language," and is specific to the processor type. PIC assembly code isn't compatible with the Atmel AVR controller, or the Intel 8051, and vice versa.

There are "higher level" languages that are available for most controllers. Software on a PC or other development system translates the higher level programs into assembly language. This translation software is called a compiler. The most common language I've encountered is called C. BASIC is also fairly common.

>3) When starting out, is there a favorite manufacturer and/or programming language for beginners? I've seen that many companies offer their own starter kits.

BASIC is a fairly simple language to learn, although C is more widespread and I usually recommend beginning programmers to learn it for that reason. Starter kits are almost always a good idea - you know they worked right at least once (which is important when starting out with a new chip type), and they usually have examples and training materials to promote quick learning.

>4) Does the Ham community of microcontroller gurus have a favorite manufacturer and/or programming language? I would like to learn on the family of chips and/or programming language that is most prevalent in the Ham community.

Most Ham projects I've seen use a PIC controller - I believe it's mainly because the parts are inexpensive, the development tools are inexpensive (or free - much software can be downloaded, as can designs for chip programming tools), and the PIC family contains a number of different parts, from 8-pin DIPs to 40+ pin surface mount chips. You can even purchase inexpensive circuit boards with the chips already soldered on.

As for languages, most PIC code I've seen is assembly language, mainly because it makes for compact, efficient programs. I'm pretty sure C and BASIC are available for the PIC as well.

This is probably more than you wanted to know, but I hope it helps.

Dave

Dave Hinerman
WD8CIV@worldnet.att.net

Date: Sat, 16 Mar 2002 10:59:00 -0500
From: "Brian Murrey" <brian@iquest.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [122237] Re: WAS and ARRL Awards
Message-ID: <000a01c1cd03\$7d88fc50\$9b352bd1@bmurrey2K>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Thom,

Thanks for the refinement!

No slam on the ARRL awards, and fine awards they are indeed, but I just wanted to point out that other awards exist out there that don't require so much administrative overhead.

73

----- Original Message -----
From: "Thom Durfee" <wi8w@attbi.com>
To: <brian@iquest.net>
Cc: <qrp-l@lehigh.edu>
Sent: Saturday, March 16, 2002 10:34 AM
Subject: Re: WAS and ARRL Awards

> All,
>
> Brian you are absolutly right. You do not have to
> send in your cards for the awards from QRPARCI.
>
> All is required is a GCR list signed by two
> amaterurs of General class or higher indcating
> that they have inspected your cards and certify
> that they are correct. This form is available on
> the QRPARCI website at www.qrparci.org
>
> Many who have applied for the awards have also

> included photocopies of both sides of the cards
> instead of the GCR list. I would like to repeat
> that sending your original cards is not necessary
> and it is strongly recommended that you do not
> send them to me. I nor will QRPARCI will be
> responsible should anything happen to them if you
> send them to me and they are lost or destroyed.
>
> Many years ago I sent 150 cards to the ARRL to get
> an endorsement for my DXCC certificate. I sent
> them via Registered Mail and they promptly
> disappeared. They were never received by the ARRL
> and no trace of them have ever been found. A lot
> of those cards were not replaceable. Sending
> original cards is strongly discouraged at least by
> me. I have not sent for any award from ARRL that
> requires original cards. I have them field
> checked instead. Once bitten, twice shy.
>
> I would also like to mention that the Awards
> Program of QRPARCI does accept electronic QSL's as
> proof of a contact. I have never had a problem
> with any forged or phony verifications.
>
> 73
>
> Thom Durfee
> Awards Manager QRPARCI
>
>
>
>
>
>
>
>

Date: Sat, 16 Mar 2002 11:10:46 -0500
From: "John P. Cummins, Sr." <jpcummins@charter.net>
To: unlisted-recipients;; (no To-header on input)
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [122238] Re: PICs and Microcontrollers Questions
Message-ID: <3C936E86.B00ADD0@charter.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I think John was using the 16F84 as an example. A couple of NoGaNaugths are using the PIC chip in different project. We use the 12C509 in the NoGa PiG as the CW keyer and we burn the public domain code for club members using the MicroChip assembler. These chips are really limited but only cost around \$1.00 in quantity.

Several guys are using the bigger chip in their DDS VFO projects. A couple of us are burning them with the EPIC programmer which only costs around \$50 (John is right about the junk box) if you buy it assembled. I have the add on ZIFF sockets to take it all the way up to 48 pins.

Having done considerable 1400/1410, 360/370 assembler programming years ago.. these are amazing chips for their size and cost.

HTMF "Having Too Much Fun"

Pickett, AD4S

"John J. McDonough" wrote:

>
>
> BUT, compared to some of the newer parts, the 16F84 is pretty limited and
> expensive (well, not like \$6 is going to break you!)
>

Date: Sat, 16 Mar 2002 09:32:10 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: qrp-l <qrp-l@lehigh.edu>
Subject: [122239] Antenna Wire
Message-ID: <B8B8C19A.1301E%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Wire serves two purposes in an antenna system; one electrical and one structural.

Electrically, the driving requirement is good conductivity. This requirement, plus the secondary one of cost, usually drives us to use copper as the material of choice. Smaller (numerically) gauge wire has higher conductivity and larger gauge (numerically) wire has lower conductivity. In general any gauge of copper wire that will stay in the air will have adequate conductivity for an antenna, even that 30 gauge used for hidden

antennas.

Structurally, there are a number of driving parameters. Strength enough to support the antenna. flexibility enough to not work harden, and resistance to corrosion all drive the choice of antenna wire from a structural point. As a side note, the National Building Code calls out 14 gauge hard drawn wire as the minimum size to be used for antennas.

Believe it or not, Radio Shack sells good practical antenna wire. A 70 foot roll of 14 gauge (7 strands of 22 gauge) hard drawn copper wire costs \$7.00 here. At \$0.10 a foot, the price is reasonable, although not cheap. I use this wire a lot, largely because of its wide availability. I don't have any problems here in New Mexico with it.

However in an environment that is more corrosive, like near the ocean or in a large city, one quickly finds that stranded wire has its problems. The stranded wire quickly oxidizes or sulfidizes (is that a chemical term?). If there are few strands, like in the Radio Shack wire, this doesn't cause much of a problem until you try to repair an antenna. Then you find that the corrosion has reached down in the wire between the strands, and soldering is impossible unless you etch the copper with a mild acid like lemon juice or a commercial polish like Tarn-X. This should be followed by a baking soda rinse to neutralize the acid. This doesn't sound too bad, but doing it on your roof on a windy day is no easy trick. "What is dad doing on the roof with your lemon juice, Mom? If the strands are very small, like in the flexweave type wire, corrosion can eat entirely through the small strands and bring the antenna down.

Copperweld or Copper Clad steel is good antenna wire if it is the real stuff. Some lightly plated steel wire is sold, but it quickly corrodes. Price can be your guide here. The problem with Copperweld is that it is stiff and hard to handle, If you nick the copper through to the steel core, the steel core will rust.

I have used soft drawn copper magnet wire for antennas, largely because I received 100s of feet of it as a gift. This makes an acceptable antenna, but the soft drawn wire will stretch over time. Thus it is not too good for resonant dipoles as the resonant frequency will change over time, but if you use an antenna tuner you probably won't notice it. The stretch is less of a problem with an antenna erected as an inverted vee. You can remove most of the stretch before erecting the antenna by securely fastening one end of it and giving a quick hard jerk to the other end. Expect a change in length of a foot or two and strange stares from the neighbors. If you jerk too hard it will break.

THHN House wire, stranded or solid, is widely available cheap at home supply stores. It works fine for antennas, although the insulation tends to crack and peel after a few years, at least in my climate. But the electrical

performance is largely unchanged.

I have also used 22 gauge PBX wire (insulated) for antennas. I have thousands of feet of this that I rescued from a dumpster when the building I was working in was remodeled. It works fine, but the insulation changes color upon exposure to the sun.

The insulated wires are larger diameter than the equivalent bare wire, and this can be a problem if you have icing. I have heard of the use of Teflon insulated wire to alleviate icing, but have not tried it myself.

Insulated wire works just as good for antennas as does bare wire. Often we hear the refrain in conjunction that the antenna was "I cut it per the formula in the handbook, but it resonated at a different frequency". Well, the formula in the handbook is not gospel and was determined experimentally. It is shorter than a half wave in free space due to capacitive loading at the ends. This loading will vary according to the antenna's environment, configuration, and end insulators used. So you should expect it not to resonate exactly at the frequency you cut it for.

This is a long post, but the long and short of it is that pretty much any copper wire will work for an antenna. - Dr. Megacycle KK6MC/5

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 16 Mar 2002 11:45:58 -0500
From: Dan Wolfe <n4roa@mounet.com>
To: qrp-1@Lehigh.EDU
Subject: [122240] Va QSO Party
Message-ID: <3C9376C6.4794@mounet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Greetings all,

The Va QSO Party will start today at 1800Z and end at 0200Z 18 Mar. I am gonna be in there a lot on different bands. Anyone who needs Va., should have no problem finding them this weekend. I am in the "rare" county of Scott if you need it. Join the fun.

Rules can be found at "<http://www.qsl/sterling/QSOParty.html>"
For those who do not plan on sending in an entry log, the exchange is just QSO # and SPC. Frequencies are..CW--1805 KHz and 50 KHz up

from band edge on others. Ugghhhhh, PHONE--1845,3860,7260,21370,
and 28370 KHz. Novice/Tech Plus--10 KHz up from the edge of the CW
band. Come join the fun. See ya there.

72/73...Dan, N4ROA

Date: Sat, 09 Mar 2002 13:18:46 +0000
From: Brian Short <k7on@earthlink.net>
To: tcurtola@rogers.com, qrp-1@lehigh.edu
Subject: [122241] Re: PICs and Microcontrollers Questions
Message-ID: <E16mHYc-0002U9-00@snipe.prod.itd.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>2) Does each different brand or manufacturer use their own programming
>language for their specific device?

Generally, no. C compilers are common. That's my suggestion.

>3) When starting out, is there a favorite manufacturer and/or programming
>language for beginners? I've seen that many companies offer their own
>starter kits.

Maybe starting out you could consider the NetMedia Basic-X 24.
It uses a BASIC type language and provides a number of very powerful
features including multitasking, floating point, trig functions, etc.

It is pin compatible with the STAMP-2 and very easy to use.

>4) Does the Ham community of microcontroller gurus have a favorite
>manufacturer and/or programming language? I would like to learn on the
>family of chips and/or programming language that is most prevalent in the
>Ham community.

I find the hobby robotics guys do a lot more with microcontrollers.
The 68HC11 has been popular for some time. Presently, the AVR,
PICs, and Basic-X 24 are quite popular. Some robot projects use
more powerful 68332, ColdFire etc for vision etc. Some use embedded
PCs, too.

Depends what you want to do. Repeater controller? Keyer? Ider?

Again, take a close look at the NetMedia Basic-X 24 to start out.

Then, look at the AVR and/or PIC depending on your needs. Use

a good C compiler and/or assembler.

BTW, I have some examples on my web page:

<http://www.k7on.com/software/micros.htm>

<http://www.k7on.com/robotics/madmaxsw.htm>

I really need to update and put more of my projects online.

Just my \$0.02 USD, Brian

--

brian@k7on.com >or< <http://www.k7on.com/>

--

Date: Sat, 16 Mar 2002 12:05:40 -0500
From: "Jim Stamper" <jstamper@shentel.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [122242] VA QSO Party
Message-ID: <000701c1cd0c\$cdd75ef0\$8d556fcc@jim>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The Virginia QSO Party starts at 1:00 PM. There are usually a fairly low number of QRP entries--it pays to send in a log even if you don't have a huge score.

Information at: <http://www.qsl.net/sterling>

73,
jim-
KG4LDY
James H. Stamper
519 Park Avenue
Woodstock, VA 22664-1260
540-459-8350

Date: Sat, 16 Mar 2002 12:27:43 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [122243] Re: PICs and Microcontrollers Questions
Message-ID: <055701c1cd0f\$e2a740e0\$010044c0@chartermi.net>
MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----

From: "John P. Cummins, Sr." <jpcummins@charter.net>
Subject: Re: PICs and Microcontrollers Questions

> I think John was using the 16F84 as an example. A couple of NoGaNaugths
> are using the PIC chip in different project. We use the 12C509 in the

That's something I didn't mention, and nobody else did, either. The 16F84 keeps it's program in FLASH memory. This makes it relatively expensive, but you can reprogram the part over and over. This makes it popular for experimentation and one-off projects. Commercial offerings are almost always based on one of the 12Cxxx or 16Cxxx parts which can only be programmed once, but are a lot less expensive. There are also some UV ROM parts, but compared to FLASH they are a pain, so not very popular. The 16F84 also has a little bit of EEPROM for nonvolatile parameter storage. It can be handy for some applications, but EEPROM-less parts are also available as this is not needed for all applications.

> Having done considerable 1400/1410, 360/370 assembler programming years
> ago.. these are amazing chips for their size and cost.

Pickett!! Don't tell me you're an old Autocoder guy. Just the other day I was wondering whether any of that stuff survived Y2K.

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

Date: Sat, 16 Mar 2002 12:36:57 EST
From: W2SH@aol.com
To: qrp-l@lehigh.edu
Subject: [122244] Re: Wire Antenna materials your VIEWS? (Long)
Message-ID: <33.2401e5ed.29c4dcb9@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="UTF-8"
Content-Transfer-Encoding: quoted-printable
Content-Language: en

In my antennas and my feedlines I DO NOT LIKE:

1. Magnetic materials, e.g., steel.

I have experienced rf losses when using steel, and stainless steel as well, for conductors of rf. My steel losses increase when standing waves are present. I first experienced this 30 years ago when trying to match 50-ohm coax to the high impedance end of an extended double zepp with a quarter-wave, closed stub made of no. 8-gauge, galvanized steel fence wire.

My signal reports from all stations in a local net stank. They improved a good bit when I used 14-gauge, solid copper wire for the stub. 12 years ago

I noted that Moxon's wonderful book made a couple of references to the deleterious effects of magnetic substances in antennas. I only wish that he

had stressed this point more than he did.

I also avoid copper clad steel because, despite the best insulations, moisture seems to get in through the slightest crack or abrasion. Eventually, through just a single tiny nick in the copper, corrosion works its way to the steel core, and very soon after that, the steel rusts and breaks. For a long time I really liked that 13-gauge, 19 strand, polyethylene jacketed wire. Although difficult to grip with one's bare hands, it had many fine mechanical qualities. However, when my 540-footer came down, a post mortem showed corrosion, not green but black, surprisingly long distance from the break point.

2. ANY stranded wire where the strands are bare.

"The resistance [and here it is rf, not dc resistance which is being treated]

ratio of n strands of bare wire placed parallel and making contact with one another is found by experiment to be the same as for a round solid which has the same area of cross section as the sum of the cross-sectional areas of the

strands; that is, n, times the cross section of a single strand. This will be essentially the case in conductors that are in contact and are poorly insulated, except that at high frequencies the additional loss of energy due to heating of the imperfect contacts by the passage of the current from one strand to another may raise the resistance still higher."

Hey, guys, read that quotation through a couple of times. Stranded wire is fine to power up your desk lamp with 60Hz soup, but not good at "high frequencies." New stuff? Heck, no! That was published in a 300-page book by the US Bureau of Standards back in 1918. If you're not sufficiently OT, an article on these matters appeared in QEX a bit over a year ago.

Personally, I also think that the spiral configuration of twisted strands, when they are in imperfect contact with one another, introduces an inductive effect which further increases the losses.

Given the ease with which corrosion manages to penetrate insulations, it isn't hard to see why the degradation of the rf conductivity of even pure copper stranded wire will occur. And if you use stranded copper-clad steel, you can add in magnetic losses.

3. Bare solid pure copper wire.

Obviously, conductivity losses will occur when bare wire touches wet tree limbs, or whatever else.

Unlike the stranded wire case, I don't (yet) believe corrosion on the outer surface of bare solid copper wire too harmful. And remember that corrosion can get easily inside thick insulations and poor quality thin insulations (my definitions of "thick" and "thin" appear below). I tend to look at the corrosion as a layer of semiconductive stuff, part way between being a conductor and an insulator. In truth, my feeling is that if the corrosion is more an insulator, that's OK, but if it's more of a conductor (and its conductivity is bound to be less than that of pure copper), then that's bad, as no. 4 below describes.

An excellent reason to have the antenna and feedline conductors insulated is to lower received noise. The source of noise I'm referring to is called rain or snow static. Raindrops and snowflakes falling through the sky do not enjoy a frictionless descent. Rather, these particles of moisture develop a small electrostatic charge which is discharged when they strike a conductive surface. I would suspect that there is even a small capacitive discharge when they encounter an insulated conductor, but that it is very much less than for a bare conductor. (On the other hand, lots of static in a pair of headphones might dislodge ear wax).

4. Solid copper wire which is plated.

Platings of tin, lead, antimony, or whatever else might improve copper wire's solderability, all reduce the surface (and that's where skin effect makes it important to pay attention when dealing with high frequency rf) conductivity.

Over the past 70 or so years, copper smelting and refining has improved to the point where the metal's conductivity has increased. On the other hand, the purity of silver once used to improve the conductivity of poorly smelted copper has been reduced over perhaps the past 60 years to the point where "silver"-plated wire most likely has less conductivity than the copper underneath.

Gold, which does not tarnish, might be a beneficial plating on copper if its retardation of corrosion were to more than offset its approximately 50-percent lowering of the surface conductivity of the copper underneath. In any case, using thin insulating coatings, or, better yet, combined thin and thick insulations, is, I would think, a cheaper way to preserve the conductive integrity of copper wire.

5. Solid copper wire with thick insulation.

For me, thick insulation means any sheathing whose radius is greater than, say, 10 percent of the conductor's diameter.

Any insulation which is thick will reduce the velocity factor of even a single conductor of rf. The thicker the insulation sheath becomes, the lower the velocity factor, and the greater the losses, especially when standing waves are present. For a given radiator length, the lower the velocity factor, the lower the resonant frequency of the radiator. Slip a hot dog on your 440-mHz quarter-wave whip, and you'll be illegally QRP below the low end of the band. (Might be a good way to cook the beast, though).

PVC is quite plastic. It adds considerable weight to the wire, but almost no strength and not much abrasion resistance. Fabric coverings seem to have disappeared with the advent of "plastic." Polyethylene, especially when it has an additional nylon jacket, is about the best thick insulation I've encountered in terms of its abrasion resistance. Teflon's wonderful

insulating qualities aren't needed, and certainly don't justify its high cost=20
if the antenna is properly free and clear of foreign objects.

6. Solid copper wire with thin insulation.

"Enameled" (a generally applied term) wire is not specifically manufactured=20
for antennas. Rather, it is designed, almost exclusively, for winding the=20
armatures and field coils of electric motors and generators. Here what is=20
needed is an insulation which will not crack when wound with a small radius,=20
whose abrasion resistance is such that it will withstand being rubbed by=20
adjacent turns during the winding process, and, frequently, it must withstan=20
high temperatures. Obviously, enamel insulation is not designed for being=20
stretched over long straight runs, dragged over tree branches, nor to resist=20
acid rain, bird droppings, and especially, the sun's ultraviolet radiation.=20=20
Some enamel insulations work much better outdoors than others. It is hard to=20
know which are the good ones, but in my experience, they are few and=20
invariably very expensive. =20

You may conclude that I dislike everything having to do with antenna=20
materials, but my distastes vary enormously. In my perfect world, my (truly=20
open-wire feedlines, would never be under tension and never drape across=20
foreign objects. This would allow me to have no. 12 or 14-gauge, solid, soft=20
(hard-drawn copper has a tiny bit less conductivity than soft copper) wire,=20
with a perfect(!) thin (and therefore light-weight) insulation. For=20
feedlines, my perfect world can pretty much be realized.

Alas, I like big antennas. Here strength considerations become very=20
important, as does abrasion resistance because my big antenna rubs against=20
tree branches when the wind blows hard . One recent and quite worthy=20
suggestion called for 9-gauge copper wire. I don't know if it was solid or=20
stranded, nor what, if any, insulation it carried. I do know that it would=20
not stretch very much, but it would certainly be too heavy for my yet-to-be=20
resurrected 540 footer.

Again, in my perfect world, I would like a no.12 or 14-gauge, solid copper=20
conductor. I need thick insulation for abrasion resistance, plus thin=20
insulation underneath for corrosion resistance. I very much doubt that such=

=20

wire is manufactured, and I am unable to homebrew it. More importantly, I=20
want it to not stretch, be strong, be flexible and not weigh too much. =20
Having all these qualities simultaneously seems to me to be impossible.

Therefore, I have decided to not worry about the corrosion if it occurs. I=20
plan to use no.12-gauge, solid copper wire with the best thick insulation I=20
can find. [For 160, 80, and, maybe some day, 60 meters, I'd use instead a=20
husky litzendraht wire, whose individual strands are always insulated, with=20=
a=20
thick outer jacket. This stuff only exists in my dreams].

I intend to spiral it loosely (no more than one turn per meter) on=20
wax-impregnated, 3/16"-diameter Kevlar-cored rope having a braided-polyester=
=20
Dacron jacket. I will affix the wire to the rope with widely spaced ties=20
made from 75-lb test, braided Dacron kite line and a thin coating of the bes=
t=20
silicone caulk I can obtain. I will work long and hard and not be=20
discouraged when Murphy strikes. (I will not even think about antennas this=
=20
coming Sunday--March 17th).

The above shows my dislikes, aspirations and intended, but compromised,=20
approach. I'm not going to waste time trying to prove any of the above=20
assertions, and anyway I'm probably not qualified to do so. Yet I welcome=20
all comments and suggestions. I need all the help I can get. May these=20
contain light, not heat, but just in case=E2=80=A6

"Hey, Maw, start puttin' rations in the foxhole, 'cause thar's goin' to be=20
incomin' from QRP-L. And load up ma' Flit gun with a pint of kerosene. Now=
=20
lemme see, where did I hang up them danged itchy asbestos BVDs=E2=80=A6"

Charles, W2SH

Date: Sat, 16 Mar 2002 12:48:09 EST
From: Schunn99@aol.com
To: qrp-l@lehigh.edu
Subject: [122245] making your own vertical
Message-ID: <105.129b75ca.29c4df59@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

hi, guys

any suggestions on making making your vertical antenna? I have heard that 21"-36" aluminum tent poles can work with with a 47" whip on the top. And three radials each 16 feet long for 20m. I want a lightweight vertical for backing instead of throwing a dipole into a tree and then having to pull it down again.

any suggestions would be helpful.

Scott Hunnicutt

Kg4oqu

Date: Sat, 16 Mar 2002 11:07:47 -0700
From: "Francis Callahan" <colcal@srv.net>
To: <jamesd1@flash.net>,
"Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [122246] Re: Antenna Wire
Message-ID: <000b01c1cd15\$7bc993e0\$20db070c@callahan>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have used 12-3 house wire for almost 25 years just strip the outer casing off and you have 3 wires so you only have to buy 1/3 rd of what you need and it will last for years and years if you leave the plastic coating on . Just streatch it out a bit before putting up 72 Cal KF7ET misplaced Vermonter in Idaho

----- Original Message -----

From: "James R. Duffey" <jamesd1@flash.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Saturday, March 16, 2002 9:32 AM
Subject: Antenna Wire

> Wire serves two purposes in an antenna system; one electrical and one
> structural.
>
> Electrically, the driving requirement is good conductivity. This
> requirement, plus the secondary one of cost, usually drives us to use
> copper
> as the material of choice. Smaller (numerically) gauge wire has higher
> conductivity and larger gauge (numerically) wire has lower conductivity. In
> general any gauge of copper wire that will stay in the air will have
> adequate conductivity for an antenna, even that 30 gauge used for hidden
> antennas.
>
> Structurally, there are a number of driving parameters. Strength enough to
> support the antenna. flexibility enough to not work harden, and resistance

> to corrosion all drive the choice of antenna wire from a structural point.
> As a side note, the National Building Code calls out 14 gauge hard drawn
> wire as the minimum size to be used for antennas.
>
> Believe it or not, Radio Shack sells good practical antenna wire. A 70 foot
> roll of 14 gauge (7 strands of 22 gauge) hard drawn copper wire costs \$7.00
> here. At \$0.10 a foot, the price is reasonable, although not cheap. I use
> this wire a lot, largely because of its wide availability. I don't have any
> problems here in New Mexico with it.
>
> However in an environment that is more corrosive, like near the ocean or in
> a large city, one quickly finds that stranded wire has its problems. The
> stranded wire quickly oxidizes or sulfidizes (is that a chemical term?). If
> there are few strands, like in the Radio Shack wire, this doesn't cause
much
> of a problem until you try to repair an antenna. Then you find that the
> corrosion has reached down in the wire between the strands, and soldering
is
> impossible unless you etch the copper with a mild acid like lemon juice or
a
> commercial polish like Tarn-X. This should be followed by a baking soda
> rinse to neutralize the acid. This doesn't sound too bad, but doing it on
> your roof on a windy day is no easy trick. "What is dad doing on the roof
> with your lemon juice, Mom? If the strands are very small, like in the
> flexweave type wire, corrosion can eat entirely through the small strands
> and bring the antenna down.
>
> Copperweld or Copper Clad steel is good antenna wire if it is the real
> stuff. Some lightly plated steel wire is sold, but it quickly corrodes.
> Price can be your guide here. The problem with Copperweld is that it is
> stiff and hard to handle, If you nick the copper through to the steel core,
> the steel core will rust.
>
> I have used soft drawn copper magnet wire for antennas, largely because I
> received 100s of feet of it as a gift. This makes an acceptable antenna,
but
> the soft drawn wire will stretch over time. Thus it is not too good for
> resonant dipoles as the resonant frequency will change over time, but if
you
> use an antenna tuner you probably won't notice it. The stretch is less of
a
> problem with an antenna erected as an inverted vee. You can remove most of
> the stretch before erecting the antenna by securely fastening one end of it
> and giving a quick hard jerk to the other end. Expect a change in length of
> a foot or two and strange stares from the neighbors. If you jerk too hard
it
> will break.
>

> THHN House wire, stranded or solid, is widely available cheap at home
supply
> stores. It works fine for antennas, although the insulation tends to crack
> and peel after a few years, at least in my climate. But the electrical
> performance is largely unchanged.
>
> I have also used 22 gauge PBX wire (insulated) for antennas. I have
> thousands of feet of this that I rescued from a dumpster when the building
I
> was working in was remodeled. It works fine, but the insulation changes
> color upon exposure to the sun.
>
> The insulated wires are larger diameter than the equivalent bare wire, and
> this can be a problem if you have icing. I have heard of the use of Teflon
> insulated wire to alleviate icing, but have not tried it myself.
>
> Insulated wire works just as good for antennas as does bare wire. Often we
> hear the refrain in conjunction that the antenna was "I cut it per the
> formula in the handbook, but it resonated at a different frequency". Well,
> the formula in the handbook is not gospel and was determined
> experimentally. It is shorter than a half wave in free space due to
> capacitive loading at the ends. This loading will vary according to the
> antenna's environment, configuration, and end insulators used. So you
should
> expect it not to resonate exactly at the frequency you cut it for.
>
> This is a long post, but the long and short of it is that pretty much any
> copper wire will work for an antenna. - Dr. Megacycle KK6MC/5
> --
> James R. Duffey KK6MC/5
> Cedar Crest, NM DM65
>
>

Date: Sat, 16 Mar 2002 13:18:57 -0500
From: Harry Hurst <wa3ptg@comcast.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122247] HB - parts - RCA phono jacks
Message-ID: <002401c1cd17\$09d3c560\$0400a8c0@icomcast.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Who carries ceramic RCA photo jacks?

Don't want to put plastic jacks in my rigs, they're bad enough already.

Thanks & 72

Hap, WA3PTG
Wilmington DE

Date: Sun, 17 Mar 2002 12:27:31 -0600
From: "Mike Malone" <mmalone@worldlogon.com>
To: <qrp-l@lehigh.edu>, <fpqrp-l@mpna.com>
Subject: [122248] Re: [fpqrp] Cub Fox Soapbox and 1st Draft Log
Message-ID: <000801c1cde1\$68d7e6c0\$57f5a7cc@malonefamily>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Wow, I had a blast as Cub Fox! Thanks for coming out and making it fun guys... a fellow couldn't ask for better friends, beating the drum and getting folks out to work me. Thanks to all. Now with that said, I gotta tell some of you hams: I would like to buy a few of you a VOWEL!!! LOL , Matt WB6BWZ I will never complain about how long it takes to send my call again!!!! Here is the rough draft, email me your corrections and again.... THANKS A BUNCH FOR LETTING ME PLAY FOX!!!

Hope to get to play again! Got slow at the end and nearly ran out of hops and barley based beverage. Thanks to Mac, Paul and da Pigs for rounding me up some q's. Still haven't figure out who Poorkey was but he must know me cuz he slowed down for the name LOL!!!

0201	W5YR	559	TX	GEORGE	5W	
0203	K5JHP	559	TX	BILL	5W	<HAW HAW JSP>
0204	K8CV	559	MI	WALT	5W	
0206	K5SR	559	TX	DALE	5W	
0206	W0CH	579	MO	DAVE	5W	
0208	K0EVZ	559	ND	DOC	5W	
0209	K4FB	559	FL	PAUL	5W	
0209	AF4PS	559	FL	MAC	5W	<SWAMP RATS IN 3'S>
0211	W5USJ	559	TX	CHUCK	5W	
0213	N9NE	559	WI	TODD	5W	
0214	W2XN	559	FL	FRED	5W	

0214	VE4WI	559	OB	CRAIG	5W	
0217	W0IS	579	MN	RICK	5W	
0218	KC9LC	559	VA	RANDY	5W	
0221	N1TP	579	FL	TOM	5W	
0222	KC1FB	559	CT	JIM	5W	
0223	N4ROA	559	VA	DAN	2W	
0225	WR50	559	TX	DAVE	5W	
0226	W8ZBT	579	TX	DENNIS	5W	
0227	NV8S	559	OH	DENNIS	5W	<DUELING DENNIS'S?>
0229	K4GT	559	GA	JIM	5W	
0230	N5VT	559	LA	FRANK	5W	
0232	KN5TX	559	TX	ROY	5W	
0233	N8VAR	559	OH	RON	5W	
0235	K5DW	559	TX	DON	5W	
0236	N4IM	559	TX	COLT	5W	
0237	K8KFJ	559	WV	GARIE	5W	
0240	N2BJ	559	IL	BARRY	5W	
0241	W9HR	559	IL	RANDY	5W	
0243	WV9N	559	OH	RANDY	5W	
0246	N5ZE	559	TX	LEW	5W	<LEW BEEN "SANDBAGGIN" US ABOUT HIS ANTLER?>
0254	N0NF	559	NE	JOHN	5W	
0256	K4LKL	559	FL	LAKELAND AMATEUR RADIO CLUB	5W	
0301	K4BYF	559	FL	JACK	5W	
0903	W8PIG/4	579	FL	POORKEY	5W	
0908	WR50	559	TX	DAVE	2W	
0310	KI0II	559	CO	RON	1W	<FB QRPP>
0311	WA5PB	559	TX	BILL	1W	<THAT SIGNAL WAS HUUUUUGE>
0312	N10DL	559	NH	ARON	5W	
0314	K8DD	549	MI	HANK	5W	
0315	K4ADI	559	SC	FRANK	5W	
0317	W8YMO	559	OH	HARRY	5W	
0319	W4BOP	559	NC	JIM	5W	
0319	K0EIN	559	MO	???	500MW	<SRI, I CANT READ MY LOG ON UR CALL...?>
0322	K2CM	539	NY	GEORGE	2W	
0325	KG4LDY	559	VA	JIM	5W	
0327	KC0GXN	559	NE	TOM	5W	
0330	WA8BXN	559	OH	MIKE	5W	<oo MIKEY!>
0331	N8VE	559	OH	JACK	5W	
0333	KD4JEZ	559	FL	DAVE	5W	
0334	KB3E0F	559	MD	SANDY	5W	
0337	WB6BWZ	579	CA	MATT	5W	
0339	KJ0C	559	MO	JIM	5W	
0340	NOIT	559	MO	DAVE	5W	
0341	KB0LUR	559	CO	PAUL	2W	
0344	W6ABC	559	CA	JACK	5W	<JACK HAS WORKED ME EVERYTIME I WAS A 40 METER OR 20 METER FOX!>

0346 AD6JY 559 CA DAN 5W
0351 W6SU 559 CA JOHN 5W
0357 KE4VPM 559 NC RONNY 5W

Date: Sat, 16 Mar 2002 13:30:44 -0500
From: W2AGN <w2agn@pobox.com>
To: W2SH@aol.com, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122249] Re: Wire Antenna materials your VIEWS? (Long)
Message-ID: <0203161330440N.08464@jsielke>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 8BIT

On Saturday 16 March 2002 12:36, W2SH@aol.com wrote:
> In my antennas and my feedlines I DO NOT LIKE:
>
<snip>
>
> The above shows my dislikes, aspirations and intended, but compromised,
> approach. I'm not going to waste time trying to prove any of the above
> assertions, and anyway I'm probably not qualified to do so. Yet I welcome
> all comments and suggestions. I need all the help I can get. May these
> contain light, not heat, but just in case
>
> "Hey, Maw, start puttin' rations in the foxhole, 'cause thar's goin' to be
> incomin' from QRP-L. And load up ma' Flit gun with a pint of kerosene.
> Now lemme see, where did I hang up them danged itchy asbestos BVDs "
>
> Charles, W2SH

--

Wow, even I could not get that emotional over antenna wire. I still like Copperweld, just because the darn stuff STAYS UP where it is supposed to be, not wrapped in pieces around tree limbs, etc. Yep, I cuss mightily the whole time I'm handling the stuff, cause it's springy and always wants to go west when I want it to go east, but once it's up, it stays put.

John L Sielke W2AGN
w2agn@pobox.com
<http://mywebpages.comcast.net/w2agn>

Trustee: W3IYQ

Date: Sat, 16 Mar 2002 13:29:59 -0500
From: Harry Hurst <wa3ptg@comcast.net>
To: wa3ptg@comcast.net,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122250] Re: HB - parts - RCA phono jacks
Message-ID: <002e01c1cd18\$946c01a0\$0400a8c0@icomcast.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Photo jacks??? never seen one of those!

Let's try again:

> Who carries ceramic RCA phono jacks?
>
> Don't want to put plastic jacks in my rigs, they're bad enough already.
>
>
> Thanks & 72
>
> Hap, WA3PTG
> Wilmington DE
>
>

----- Original Message -----

From: "Harry Hurst" <wa3ptg@comcast.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Saturday, March 16, 2002 1:18 PM
Subject: HB - parts - RCA phono jacks

> Who carries ceramic RCA photo jacks?
>
> Don't want to put plastic jacks in my rigs, they're bad enough already.
>
>
> Thanks & 72
>
> Hap, WA3PTG
> Wilmington DE
>

>

Date: Sat, 16 Mar 2002 13:42:11 -0500
From: Dave Fouchey <dafouchey@comcast.net>
To: W2SH@aol.com, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122251] Re: Wire Antenna materials your VIEWS? (Long)
Message-ID: <4.1.20020316133207.009dcea0@localhost>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: quoted-printable

At 12:36 PM 3/16/2002 -0500, W2SH@aol.com wrote:

>

>Alas, I like big antennas. Here strength considerations become very=20
>important, as does abrasion resistance because my big antenna rubs against=20
>tree branches when the wind blows hard . One recent and quite worthy=20
>suggestion called for 9-gauge copper wire. I don't know if it was solid or=20
>stranded, nor what, if any, insulation it carried. I do know that it would=20
>not stretch very much, but it would certainly be too heavy for my yet-to-be=20
>resurrected 540 footer.

>

Solid Hard Drawn #9 with a thick weather resistant poly insulation. Used specifically for open wire transmission lines/telephone circuits. The stuff is tough, strong, and makes great wire antennas. At HF the change in vf of the wire is minimal. Noise from snow and rain is lowered due to the insulation. I have strung miles and miles of this for telephone work on the Railroad. Yes it is heavy, a minor trade off in exchange for it's strength and durability. It IS harder to work with than smaller gauge wire, but it is a trade I am more than happy to live with for it's ability to stand up to icing and high winds.

Have also used #9 Copperweld and in the coastal environs we were using it, it was more trouble than it was worth. Initially stronger than the HD Copper, it was subject to core corrosion through even the most minor nick in the cladding.

>Again, in my perfect world, I would like a no.12 or 14-gauge, solid copper=20
>conductor. I need thick insulation for abrasion resistance, plus thin=20
>insulation underneath for corrosion resistance. I very much doubt that=20
such=20

>wire is manufactured, and I am unable to homebrew it. More importantly, I=
=20
>want it to not stretch, be strong, be flexible and not weigh too much. =20
>Having all these qualities simultaneously seems to me to be impossible.
>
>Therefore, I have decided to not worry about the corrosion if it occurs. I=
=20
>plan to use no.12-gauge, solid copper wire with the best thick insulation I=
=20
>can find. [For 160, 80, and, maybe some day, 60 meters, I'd use instead a=
=20
>husky litzendraht wire, whose individual strands are always insulated, with=
a=20
>thick outer jacket. This stuff only exists in my dreams].
>

Oh live a little, for 160 go with #6 hd copper...;-)

>The above shows my dislikes, aspirations and intended, but compromised,=20
>approach. I'm not going to waste time trying to prove any of the above=20
>assertions, and anyway I'm probably not qualified to do so. Yet I welcome=
=20
>all comments and suggestions. I need all the help I can get. May these=20
>contain light, not heat, but just in case=E2=80=A6
>
>"Hey, Maw, start puttin' rations in the foxhole, 'cause thar's goin' to be=
=20
>incomin' from QRP-L. And load up ma' Flit gun with a pint of kerosene. =
Now=20
>lemme see, where did I hang up them danged itchy asbestos BVDs=E2=80=A6"
>
>Charles, W2SH
Happy constructing Charles!

73's
Dave
WA4EMR

Date: Sat, 16 Mar 2002 12:51:29 -0600
From: Ted Kell <tedkell@ev1.net>
To: k7qo@earthlink.net,
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122252] Re: Parts Storage
Message-ID: <200203161251698.SM00313@default>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

3/14/02 11:22:20 AM, Chuck Adams <k7qo@earthlink.net> wrote:

>Now what do you do for the larger parts? Well, I have been
>using pill bottles. For those of us that are on pills for the rest
>of our lives this is not an issue for the supply of same. The biggest
>aggravation I was having was getting the labels off. If we could get
>a bottle of the glue we would have no problems with putting down
>pads for our Manhattan projects. :-) ;-) So about 6 months ago
>I was thinking about how to do this after discovering that the new
>mail order supplier was using labels that were much easier to
>remove. I took one of the old bottles and filled it with water
>and left the lid on loosely and put it in the microwave for one
>minute to get the water hot. Let it sit for one minute and then
>found that the label peeled off without the mess and fuss of
>leaving an ugly mess. Now I can put parts in the bottles
>and label them with the file folder labels like Avery makes
>or ones that you may have at the office for those of you still
>working for a living. :-)

>

>

>

>Chuck Adams, K7QO CP-60 k7qo@earthlink.net

><http://www.qsl.net/k7qo>

>

>Moving to Arizona? --- Bring your own water, please.

>

>

>

Another way to remove the labels. Peel as much of the label off as you reasonably can, making sure you get all the top glossy part off. Then, when your spouse is not around, pour some cooking oil in your hand, about a tsp is probably enough, and rub it all over the remaining label. Let it sit overnight and then you can easily scrape off the rest with your fingernails. Then wash the bottle and it's clean and label-less.

Another use for the smaller bottles. The bottles with the clear inner cap are water resistant/proff. I give them to my scouts for match safes. I was out with the \venture group this past week and I saw several using them. Feels good to see the scrounging habit get passed on.

N3Ted

Date: Sat, 16 Mar 2002 18:57:15
From: "Mike WA8BXN" <hubby2k@hotmail.com>
To: mmalone@worldlogon.com, qrp-1@Lehigh.EDU
Subject: [122253] Re: [fpqrp] Cub Fox Soapbox and 1st Draft Log
Message-ID: <F137GhAUTfomolIiCSF00001eea@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Mike -

Thanks for one last cub fox pelt ... caught you mobile in motion in Ohio on my way back from Maryland. Sorry I couldn't stay out that way a little longer and have tried to get you from the mythical land of Delaware!
73/72 - Mike WA8BXN

Join the world s largest e-mail service with MSN Hotmail.
<http://www.hotmail.com>

Date: Sat, 16 Mar 2002 14:05:45 -0500
From: Steven Weber <kd1jv@moose.ncia.net>
To: qrp-1@lehigh.edu
Subject: [122254] Head copy
Message-ID: <3.0.6.32.20020316140545.007b5d60@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I can sorta head copy over a narrow range of code speeds. Too slow and can't keep track of the letters, too fast can't recognise the letters at all. I learned code the wrong way and still count dits and dahs for the most part..

I think learning the sound of complete words as opposed to keeping track of letters is like the phonics vs whole word learning to read debate. I lean towards the phonics approach. The word sound might work for the first part of the QS0, where the format is pretty much set, but latter on when they make a comment or ask a question, you can get all out of whack, unless you know the sound for a lot of words. I guess in the end, you'd use a combination of word sound reconnision and building up words letter by letter.

Steve, KD1JV
"Melt Solder"
White Mountains of New Hampshire
<http://www.qsl.net/kd1jv/>

Date: Sat, 16 Mar 2002 13:40:20 -0500
From: Steven Weber <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu
Subject: [122255] Re: PICs and Microcontrollers Questions
Message-ID: <3.0.6.32.20020316134020.007ace80@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I guess I'll weigh in too..

For some reason, PIC's do tend to dominate the hobby market, guess because they were one of the first low cost uP's widely available. But they are pretty clunky to use. About the only good feature they have is the fast prescaler input for the counter, which makes making frequency counters fairly easy to do. They finally have Flash memory versions, but all the low end units are still OTP (one time program) or eprom. That means you have to buy the expensive eprom version to develop code with, a uv eraser lamp and wait 20 minutes for the chip to erase before you can try a correction to your program. That can really slow you down.

I much prefer the Atmel AVR chips. These are all Flash memory, have built in EEPROM, a much more extensive and sane instruction set, run four times faster than a PIC for the same clock speed and are very reasonably priced. Digi-Key sells a starter kit for only \$49.00 which will program almost all of the AVR series chips, software and a sample chip.

I also like the old 8051 series of cpu's, and their more recent derivatives, but programmers for those are less widely available.

As for learning how to program, if you are a complete novice, I'd go right to learning the assembly code. Before you start, you need to have a clear conception of what it is you want to do. A good first program to try is a simple keyer, as it's a well defined task, and makes you learn how to use many of the fundamental functions of the cpu.

72,

Steve, KD1JV
"Melt Solder"
White Mountains of New Hampshire
<http://www.qsl.net/kd1jv/>

Date: Sat, 16 Mar 2002 13:08:14 -0600
From: "tmyers" <tmyers@AcademicPlanet.com>
To: "QRP-L Post" <qrp-l@Lehigh.EDU>
Subject: [122256] KQ5U's Armadillo Log
Message-ID: <00e701c1cd1d\$ee217400\$0100a8c0@newkid>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I found an error in transcribing the log. Look it over and let me know if there are any other errors. I was really tired when I did this.

Armadillo 2002 KQ5U 14 MAR 2002 0200 - 0400 UTC

01 K9ME 559 WI RICK 5W
02 K5WA 559 TX BOB 5W
03 K9CV 559 MI WALT 5W
04 WA5BDU 559 AR NICK 5W
05 K5PSH 559 TX JERRY 1W
06 N9NE 559 WI TODD 5W
07 WA9TZE 559 WI JIM 2W
08 W9XU 559 WI LON 3W
09 W1SA 599 MS SKIP 5W
10 K5DW 559 TX DON 5W
11 K4FB 559 FL PAUL 5W
12 W5MU 599 TX MARTY 5W
13 K5BGB 589 TX ROD 5W
14 K5JX 559 TX RENE 5W
15 N1TP 599 FL TOM 5W
16 K0EVZ 599 ND DOC 5W
17 KJ5X 599 TX JIM 5W
18 N9NE 599 WI TODD 5W DUPE
19 AF4PS 579 FL MAC 3W
20 WB6BWZ 559 GA MATT 5W
21 KR5N 559 TX MARCUS 5W
22 N4IM 559 TX COLE 5W
23 N5IB 559 LA JIM 900mW
24 K5VUU 599 TX ED 5W
25 AA50 559 LA VERN 5W
26 K5GQ/M 559 TX MARK 5W
27 K5WAF 559 TX BILL 5W
28 K5FZ 559 TX RICH 5W
29 K5MGJ 559 TX MARK 5W
30 WR50 559 TX DAVE 2W
31 N5JI 559 TX RICH 3W
32 N1Q0 559 VT JOHN 2W

33 AD5CH 559 TX ROD 5W
34 K0CO 559 OLDFART 5W
35 N0DSP 559 CO TOM 5W
36 W1SVU 579 VT TONY 1W
37 K5VU 599 OK MIKE 5W
38 K8IQY 559 MI JIM 2W
39 KE4TG 559 TN ROY 4W
40 WV9N 559 OH RANDY 5W
41 K4TJD 559 TOM 5W
42 W9UR 559 IL RANDY 5W
43 W0RSP 559 SD ADE 2W
44 KI0II 559 CO RON 900mW
45 W5BA 559 TX GERALD 5W
46 KK9LC 559 VA RANDY 5W
47 K5JDB 599 TX JIM 5W
48 W3ERV 559 MD WES 2W
49 W7ILW 559 AZ WALT 400mW
50 KB7WW 559 OR ART 5W
END-OF LOG:

Date: Sat, 16 Mar 2002 19:30:22 +0000
From: Larry Cahoon <lejek@erols.com>
To: Schunn99@aol.com, qrp-1@lehigh.edu
Subject: [122257] Re: making your own vertical
Message-ID: <5.1.0.14.0.20020316192414.0227dce8@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

I would still rather use a dipole. But yes aluminum tent poles will work, but be careful, too much height and they are weak and tend to bend on you. They are just not thick walled enough to hold up the weight of too many sections. Another option if you really want a vertical, and even lighter than tent poles, especially if you are on 20 meters and up is to just throw one rope over the trees and tie a piece of wire to the rope and pull it up as a vertical. Throw in a few radials and you are set. It is not too hard to throw the rope over a 20 ft branch and the wire weighs less than the tent poles.

73 de Larry.....WD3P in MD
<http://www.qsl.net/wd3p/>

At 12:48 PM 3/16/2002 -0500, you wrote:
>hi, guys

>any suggestions on making making your vertical antenna? I have heard that 21"
>-36" aluminum tent poles can work with with a 47" whip on the top. And three
>radials each 16 feet long for 20m. I want a lightweight vertical for backing
>instead of throwing a dipole into a tree and then having to pull it down
>again.
>any suggestions would be helpful.
>Scott Hunnicutt
>Kg4oqu

Date: Sat, 16 Mar 2002 13:55:25 -0600
From: "J. W. (Dub) Thornton" <dub@oklahoma.net>
To: qrp-l@lehigh.edu
Subject: [122258] Re: Head copy
Message-ID: <5.1.0.14.2.20020316132156.025263e0@mail.oklahoma.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

For many years, I have heard "word copy" is the only way to fly, if one ever expects to copy in the fast lane. I have never been able to master that method tho, & indeed wonder how anybody else has. I copy code by reading LETTERS, to spell out the words. Given that there are 26 letters in the English language, plus another few numbers, & other odds'n'ends, this seems to be much easier than attempting to copy words. How many words are in the English language?

I have broached this subject in the past, and been told, "well, you don't really copy WORDS, but copy phonetically, just as we learn to read". This makes a great deal more sense, than trying to copy words, but I still must copy the letters to get the phonics. Guess I am just not up to the word copy.

I have another drawback to real high speed copy. I first learned the code, as a railroad telegrapher in the mid 50's. When I got into Ham Radio, in 1969, the code came very easily, up to a point, but for the letters that were different, I heard the code as the Morse code I was familiar with, and had to convert it to the Continental code used by Hams. I have never been able to totally break that way of copying code, thus, words that consist of only letters that are the same in both codes, I copy at a much higher rate of speed than words that have both codes mixed in.

Its hard to beat "rag-chewin" with buddies, to help your "head-copy". Working at a speed where you copy 75/80% seemed to be a big help for me. If you want it, you can get it. Just get on the air and DO it.

-
J. W. (Dub) Thornton WA5YFY
Minco, OK.

Date: Sat, 16 Mar 2002 14:00:32 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: QRP-Canada <qrp-canada@neale.gpfn.sk.ca>,
Low Power Group <qrp-l@LeHigh.EDU>
Subject: [122259] where can I find?
Message-ID: <Pine.LNX.4.33.0203161357590.8457-100000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I'm looking for a small amount of very thin mylar or teflon to put underneath crystals so as to avoid the shorting problem...having a heck of a time trying to find some locally...maybe I'm not asking the right people...any ideas from anyone please?...thank you...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

Date: Sat, 16 Mar 2002 12:08:43 -0800
From: "Trevor Jacobs" <fxtech@earthlink.net>
To: <kd1jv@moose.ncia.net>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [122260] Re: PICs and Microcontrollers Questions
Message-ID: <006001c1cd26\$6071b300\$2798b2d1@tjacobs>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Steve and all,

Nice topic! I myself agree with Steve 100% and find the PIC's a bit "clunky" as far as the programming goes. I guess that's because when I started programming, I was using Intel 8088 based stuff, and Motorola 6800 and was used to having a bit more of an instruction set, especially the math functions. My personal favorite for hobby stuff is the Intel 8051/52 and derivative Micros from various companies like Atmel, Philips, and Dallas. These chips have very nice features and are inexpensive to use. The Atmel line is available from Digi-Key. There are plans for programmers and assemblers all over the web. For an assembler I'd suggest the Metalink ASM51. It's free and available on the Atmel web site. There are also plans for building a programmer on the Atmel site. If you want to give the 8051 stuff a try, I recommend a book called "Programming and Interfacing the 8051 Microcontroller" by Sencer Yerelan and Ashutosh Ahluwalia. You can find it at Amazon. The Atmel AVR stuff looks very nice also and has a very good instruction set. It really depends on what you want to do. One really nice application of the PIC is the little Tick Keyers, and an 8051 might be a bit overblown for a project like this, but for the DDS VFO that I've been designing for a while, the 8051 was a great choice. I'd suggest getting a couple of books and reading a bit about it first, and also experimenting with different simple projects to see what you like. Hope this helps.

72/73's

Trev

KG6CYN

----- Original Message -----

From: Steven Weber <kd1jv@moose.ncia.net>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Sent: Saturday, March 16, 2002 10:40 AM

Subject: Re: PICs and Microcontrollers Questions

> I guess I'll weigh in too..

>

> For some reason, PIC's do tend to dominate the hobby market, guess because

> they were one of the first low cost uP's widely available. But they are

> pretty clunky to use. About the only good feature they have is the fast

> prescaler input for the counter, which makes making frequency counters

> fairly easy to do. They finally have Flash memory versions, but all the low

> end units are still OTP (one time program) or eprom. That means you have to

> buy the expensive eprom version to develop code with, a uv eraser lamp and

> wait 20 minutes for the chip to erase before you can try a correction
to
> your program. That can really slow you down.
>
> I much prefer the Atmel AVR chips. These are all Flash memory, have
built
> in EEPROM, a much more extensive and sane instruction set, run four
times
> faster than a PIC for the same clock speed and are very reasonably
priced.
> Digi-Key sells a starter kit for only \$49.00 which will program almost
all
> of the AVR series chips, software and a sample chip.
>
> I also like the old 8051 series of cpu's, and thier more recent
> derivatives, but programmers for those are less widely available.
>
> As for learing how to program, if you are a complete novice, I'd go
right
> to learning the assembly code. Before you start, you need to have a
clear
> conception of what it is you want to do. A good first program to try
is a
> simple keyer, as it's a well defined task, and makes you learn how to
use
> many of the fundimental functions of the cpu.
> 72,
> Steve, KD1JV
> "Melt Solder"
> White Mountains of New Hampshire
> <http://www.qsl.net/kd1jv/>
>

Date: Sat, 16 Mar 2002 14:16:57 -0600
From: MIKE SOUHRADA <wb9iog@revealed.net>
To: rattray@gpfn.sk.ca
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122261] Re: where can I find?
Message-ID: <3C93A839.D1C29375@revealed.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bruce Rattray wrote:

>

> I'm looking for a small amount of very thin mylar or teflon to put
> underneath crystals so as to avoid the shorting problem...having a heck of
> a time trying to find some locally...maybe I'm not asking the right
> people...any ideas from anyone please?...thank you...

>

> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
Bruce

Right here!

I have some 4 Mil mylar (I think) that was used in a shop for mask
protection. They
are tear off sheets about 6" x 10". Can send you a few sheets for
postage.

I use these to protect ham gear that doesn't need ventilation on top.
Helps keep our gear scratch free.

Mike

Iowa

Send Addr:

Date: Sat, 16 Mar 2002 15:21:29 EST
From: NOBN@aol.com
To: qrp-l@lehigh.edu
Subject: [122262] Re: making your own vertical
Message-ID: <7a.23bf4ff0.29c50349@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Scott and group,

For a real nice backpack portable vertical, try Gary n0sxx setup. Go to
<http://marina.fortunecity.com/sanpedro/351/>

73,

Daniel n0bn

Date: Sat, 16 Mar 2002 15:35:55 -0500
From: W2AGN <w2agn@pobox.com>
To: Bruce Rattray <rattray@gpfn.sk.ca>,
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122263] Re: where can I find?
Message-ID: <0203161535550Q.08464@jsielke>

MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

On Saturday 16 March 2002 15:00, Bruce Rattray wrote:

> I'm looking for a small amount of very thin mylar or teflon to put
> underneath crystals so as to avoid the shorting problem...having a heck of
> a time trying to find some locally...maybe I'm not asking the right
> people...any ideas from anyone please?...thank you...
>
>

--

I have used that clear packing tape. Just cut off a hunk, stuck the crystal leads through, then trim with scissors. I put the sticky side up, to stick to the bottom of the crystal.

John L Sielke W2AGN
w2agn@pobox.com
<http://mywebpages.comcast.net/w2agn>
Trustee: W3IYQ

Date: Sat, 16 Mar 2002 13:02:50 -0800 (PST)
From: Ekim Snave <kd5aad2000@yahoo.com>
To: rattray@gpfn.sk.ca,
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122264] Re: where can I find?
Message-ID: <20020316210250.19284.qmail@web10902.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Just out of curiosity, what is the "shorting problem"?
Is that something that comes up with crystals alot?

73,
Mike KD5AAD

--- Bruce Rattray <rattray@gpfn.sk.ca> wrote:

>
> I'm looking for a small amount of very thin mylar or
> teflon to put
> underneath crystals so as to avoid the shorting
> problem...having a heck of

> a time trying to find some locally...maybe I'm not
> asking the right
> people...any ideas from anyone please?...thank
> you...
>
> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886
> ARCI#9683 Zombie#272
> A-1 Operator Club - 10/10# 944 - QRP
> Borg#1 - Whiner#10 -
> - VE5QRP SOC#11 - VE5RC SOC#12 - oo#148
> - K2#2032 - COG#15 -
> "QRP! How sweet it is!" "I am da
> man wit "DAH" paddle!"
>
>

Do You Yahoo!?
Yahoo! Sports - live college hoops coverage
<http://sports.yahoo.com/>

Date: Sat, 16 Mar 2002 16:12:20 -0500
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <rattray@gpfn.sk.ca>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [122265] Re: where can I find?
Message-ID: <00e701c1cd2f\$5a1a13e0\$0600a8c0@charter.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

While you can get actual sheets for this, the suggestion of tape is a good one. If it was a 'one-time' deal, you can cut it and stick to the xtal, but if you're doing a lot, then I'd put it on the board and 'poke' the xtal leads through it.

Regular tape would work, but you can get 'packing tape' that is MUCH tougher than regular tape. This might be recommended when you have something like a surface mount cap 'right there' too close to the xtal and you're afraid that if the xtal gets bumped it might bend over a bit and pop through regular tape.

Mike

----- Original Message -----

From: "Bruce Rattray" <rattray@gpfn.sk.ca>

>

> I'm looking for a small amount of very thin mylar or teflon to put
> underneath crystals so as to avoid the shorting problem...having a heck
of

> a time trying to find some locally...maybe I'm not asking the right
> people...any ideas from anyone please?...thank you...

>

> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272

Date: Sat, 16 Mar 2002 16:15:32 -0500

From: "Ed Tanton" <n4xy@earthlink.net>

To: "'Low Power Amateur Radio Discussion'" <qrp-l@lehigh.edu>

Subject: [122266] RE: where can I find?

Message-ID: <004d01c1cd2f\$b5b1a600\$c39efea9@n4xy>

MIME-Version: 1.0

Content-Type: text/plain;
charset="US-ASCII"

Content-Transfer-Encoding: 7bit

Hi Mike... I expect that Bruce is talking about the metal case of the
crystal shorting pc board runs underneath it.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY

189 Pioneer Trail

Marietta, GA 30068-3466

website: <http://www.n4xy.com>

All emails <IN> & <OUT> checked by
Norton AntiVirus with AutoProtect

LM: ARRL QCWA AMSAT & INDEXA;

SEDXC NCDXA GACW QRP-ARCI

OK-QRP QRP-L #758 K2 (FT) #00057

Date: Sat, 16 Mar 2002 16:21:10 -0500
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <tcurtola@rogers.com>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [122267] Re: PICs and Microcontrollers Questions
Message-ID: <011101c1cd30\$93700180\$0600a8c0@charter.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Just to weigh in here with more comments...

I like the PIC. In fact, I was going to use one of the little 8-pin guys in a weather project I'm working on. But I quickly discovered that while you can use these things just fine with the internal RC circuit, you CANNOT do reliable timing or A2D without a crystal. And that means giving up 2 pins...

So... I switched to the Z8+.

I'm interfacing to a 6811 based product, so I know the 11, and yes, it IS neat, but overkill in this. And the 51 is neat too, I've done projects with that (and done keyboard controllers with it!) but again, overkill.

The Z8+ is a neat part. No, there are no 'erasable' parts. OTP only.

I was using CMOS PICs and then buying an OTP PIC when I hit a 'milestone' and wanted to keep it. And I have the complete PICstart package, so in the future I can do almost any PIC I choose.

But while the Z8+ only has OTP parts, the whole EMULATOR / PROGRAMMER was only \$99. This lets me step through stuff and really debug easily. Something I couldn't do with the PIC. The only downside is the Z8+ ICE only works at 10MHz, so I had to put switches in my code to assemble for 10MHz or 8MHz. Big deal...

Being able to single step and see variables change was a great step up from what I was doing on the PIC. But I DO have to admit, the PIC was a neat little part.

Mike

Date: Sat, 16 Mar 2002 21:45:44 -0000
From: Mike Bray <mikebray@uplogon.com>
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>
Subject: [122268] 20 Meter Half Square Antenna for QRP Portable Operation
Message-ID: <01C1CD33.F2D29E00.mikebray@uplogon.com>

Hi, gang -

About a week ago I uploaded our brand new Mich-A-Con Amateur Radio Club web site. Our club serves the South Central Upper Peninsula of Michigan and North Eastern Wisconsin. It is not a QRP club, but the web site has a QRP slant because its creator is an avid QRPer - me (Mike, KA1DDB) - hi hi!.

Please visit the site and check out the article on the portable 20 meter half square antenna. Click on "Tips 'n Tales" on the menu. The URL for the web site is:

<http://www.qsl.net/ka1ddb/>

72,

Mike Bray, KA1DDB

QRPing in the Upper Peninsula of Michigan

Grid: EN65cr

Mikebray@uplogon.com

Date: Sat, 16 Mar 2002 21:46:55 +0000
From: Arthur Moe <kb7ww@easystreet.com>
To: ratttray@gpfn.sk.ca
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122269] Re: where can I find?
Message-ID: <3C93BD4F.70398EAF@easystreet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bruce and all,

Try here

<http://www.mcmaster.com/>

Art

KB7WW

Bruce Rattray wrote:

>
> I'm looking for a small amount of very thin mylar or teflon to put
> underneath crystals so as to avoid the shorting problem...having a heck of
> a time trying to find some locally...maybe I'm not asking the right
> people...any ideas from anyone please?...thank you...
>
> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
> A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
> - VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
> "QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

Date: Sat, 16 Mar 2002 16:50:10 -0500
From: W2AGN <w2agn@pobox.com>
To: Mike Bray <mikebray@uplogon.com>,
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122270] Re: 20 Meter Half Square Antenna for QRP Portable Operation
Message-ID: <0203161650100T.08464@jsielke>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

On Saturday 16 March 2002 16:45, Mike Bray wrote:

>
> Please visit the site and check out the article on the portable 20 meter
> half square antenna. Click on "Tips 'n Tales" on the menu. The URL for
> the web site is:
> <http://www.qsl.net/ka1ddb/>

--
Must work. You always have a booming signal into NJ in the contests!

John L Sielke W2AGN
w2agn@pobox.com
<http://mywebpages.comcast.net/w2agn>
Trustee: W3IYQ

Date: Sat, 16 Mar 2002 16:49:46 -0500
From: wb4mnf <wb4mnf@atl.org>
To: rattray@gpfn.sk.ca
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [122271] Re: where can I find?
Message-ID: <3C93BDFA.1080009@atl.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

Bruce-

Get your butt over to the local hardware store.
In the plumbing department you'll find these nifty
rolls of teflon tape. It has no adhesive. It's just
a long strip of thin Teflon and comes in a couple
of different widths. Plumbers, and guys like me who
live in old houses and so can't afford plumbers
use it all the time. It makes threaded pipes go
together, 'O'so easily.

-bob
WB4MNF

Bruce Rattray wrote:

> I'm looking for a small amount of very thin mylar or teflon to put
> underneath crystals so as to avoid the shorting problem...having a heck of
> a time trying to find some locally...maybe I'm not asking the right
> people...any ideas from anyone please?...thank you...
>
> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
> A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
> - VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
> "QRP! How sweet it is!" "I am da man wit "DAH" paddle!"
>
>
>
>
>

Date: Sat, 16 Mar 2002 13:49:41 -0800
From: Ed Loranger <we6w@qsl.net>
To: qrp-l@lehigh.edu
Subject: [122272] ZM-2 vari-cap
Message-ID: <3C93BDF5.19D99461@qsl.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hey gang, I have a low-Z inverted vee terminating approx 1/4 wl of 600 line. Needless to say I'm playing with Hi-Z input to the feedline. I accidentally sent 10 watts or so into the ZM-2 and the high voltage blasted holes through the output capacitor insulators on the ZM-2!

I was using an older rig without ext-alc set up for qrp....

I now have a icom 756pro-2 that goes down to 2.5 watts so this won't happen again.

Anyone got a spare for a few bux? Until then, the Norcal balanced atu kit is in service agn. Sweet atu and fun kit.

Oh, with the 756pro2 having 6 meters, what is the 6 Meter qrp qrg?

72/Ed Loranger, we6w/qrp forever.
With stealth inv. vee between mobile homes
and blackwidow fishing pole support.

Sign Up for NetZero Platinum Today
Only \$9.95 per month!
<http://my.netzero.net/s/signup?r=platinum&refcd=PT97>

Date: Sat, 16 Mar 2002 17:48:19 -0500
From: Bruce Muscolino <w6toy@erols.com>
To: kd1jv@moose.ncia.net
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [122273] Re: Head copy
Message-ID: <3C93CBB3.906FFC93@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Frankly, I think "head copy" is mostly a myth! CW is sent letter by letter, i.e. "A and M and D"/ It is like listening to a person spelling each word in a sentence. If you send it faster it still comes out letter by letter!

Yes, you can copy some parts of a QSO in your head. Certain symbols act as attention cues. Symbols like QTH, RST, and NAME. And you can copy

the following information in your head, but if you stop to write it in your log, you will likely forget it before you get through!

I have also seen all the "music of CW" systems. They also work, in a limited speed range, with PERFECTLY sent CW, on simple things. Consider, could you tell the sound of your favorite song if it were sent with no rhythm? This is what you are trying to fool yourself into doing!

I believe the mind can do almost anything, but this flies in the face of learning psychology to me!

73

Date: Sat, 16 Mar 2002 18:04:14 -0500
From: W2AGN <w2agn@pobox.com>
To: Bruce Muscolino <w6toy@erols.com>,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122274] Re: Head copy
Message-ID: <0203161804140W.08464@jsielke>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

On Saturday 16 March 2002 17:48, Bruce Muscolino wrote:

> Frankly, I think "head copy" is mostly a myth! CW is sent letter by
> letter, i.e. "A and M and D"/ It is like listening to a person spelling
> each word in a sentence. If you send it faster it still comes out
> letter by letter!

>

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> as attention cues. Symbols like QTH, RST, and NAME. And you can copy
> the following information in your head, but if you stop to write it in
> your log, you will likely forget it before you get through!

>

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> limited speed range, with PERFECTLY sent CW, on simple things.
> Consider, could you tell the sound of your favorite song if it were sent
> with no rhythm? This is what you are trying to fool yourself into
> doing!

>

> I believe the mind can do almost anything, but this flies in the face of
> learning psychology to me!

>

> 73

--

Well, I find that words like "of" "the" "name" and other short, common ones seem to come as a unit, rather than letters, especially above 25 wpm.

John L Sielke W2AGN
w2agn@pobox.com
<http://mywebpages.comcast.net/w2agn>
Trustee: W3IYQ

Date: Sat, 16 Mar 2002 18:23:46 -0500
From: "N3BJ" <alanfryer@msn.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [122275] FS: DSW Enclosure Kit
Message-ID: <002201c1cd41\$a101c2a0\$3de0c943@hppav>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Original unopened kit offered by Small Wonder Labs before the DSW series was discontinued. Blue case, etc.

\$40 shipped

Alan, N3BJ
Bent Mountain, VA

Date: Sat, 16 Mar 2002 17:30:07 -0600
From: "Bill & Linda Milligan" <milligan@charter.net>
To: <w6toy@erols.com>,
"Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [122276] RE: Head copy
Message-ID: <001601c1cd42\$824aa470\$0100a8c0@milligan>
MIME-Version: 1.0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

Learning to head copy was very difficult for me and I had to force myself to set the pencil down. I used to write down every letter and it was a hard habit to break. What helped me was having a friend to chat

with. Oh sure, I miss a word now and then but I still follow the conversation.

You also need to be 20wpm+. I'm not a speedster but some words like 'THE' can be copied at very high speeds. It becomes one sound. I believe all of you hear some word sounds without realizing it. I'll bet that when you hear ES your mind thinks AND. I'd say that ES is probably the first word sound learned. It becomes one sound.

In the evenings tune in W1AW and just sit back in the chair and head copy. Practice, practice and practice. If you don't put the pencil down, you will never learn. I don't reckon I'd ever learn to ride that bicycle if the training wheels stayed on. Put down the pencil.

And talking about code.... I remember years ago listening to 20wpm thinking no human can copy that! It sounded like RTTY! Everything is difficult until you've done it.

Bill K4BX
k4bx@charter.net

Date: Sat, 16 Mar 2002 23:36:01 -0000
From: "WI8W" <wi8w@arrl.net>
To: <qrp-l@lehigh.edu>
Subject: [122277] Re: Head Copy
Message-ID: <032801c1cd43\$56ec1560\$6501a8c0@attbi.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I must respectfully disagree with Bruce that head copy is somewhat of a myth.

While it is true that CW is sent letter by letter, all words are also spelled letter by letter.

I remember watching all my 3 kids learn first their letters, then combine them into words. CW can be learned by the same method. I know of no one who, in normal conversation, talks by saying each letter of a word. I applied what my kids were doing to my CW practice.

Spend as much time practicing CW as your kids do or did learning to speak and you will be just as good at CW as you are at conversation.

I copy CW entirely in my head and only make a occasional note on what is being said, mostly so I can respond to it. I can copy 50 wpm very easily, but I have been practicing for the past 25 years. I still practice by playing a CD in my car everyday going to and from work.

Head copy of CW is not a myth. With practice it will become second nature. I call it my second language. It took me years to achieve it, just like it took years for my kids to learn how to speak.

73

Thom WI8W

Date: Sat, 16 Mar 2002 18:42:51 -0500
From: Paul Womble <pwomble1@tampabay.rr.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [122278] Re: Head copy
Message-ID: <3C93D87B.4D9EAC71@tampabay.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bruce Muscolino wrote:

> Frankly, I think "head copy" is mostly a myth! CW is sent letter by
> letter, i.e. "A and M and D"/ It is like listening to a person spelling
> each word in a sentence. If you send it faster it still comes out
> letter by letter!
>

I know guys that can copy 100% of a qso in their head...while looking you in the face talking!

I call it lots and lots of practice...not a myth. CW is a language...not just a bunch of letters. I've talked with the guys that can copy like that, and they all say that they hear words...not the individual letters.

73

Paul K4FB

Date: Sat, 16 Mar 2002 17:44:23 -0600
From: Steve Muncy <smuncy@mac.com>
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [122279] MacK2 Updated
Message-ID: <B8B934F7.2BDC%smuncy@mac.com>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Version 1.1 of MacK2, a remote control program for the Elecraft K2, has been updated and is available at:

<http://homepage.mac.com/smuncy/mack2/>

New Features Include:

- send CW by opening text file;
- MacK2 Mac Memories to store short text in the CW Window
(avoiding reprogramming K2)
- button descriptions for memories on CW Window-first 5 chars of text put in preferences
- offset zero button to center of RIT/XIT control knob;
- callsign text field, GMT time and date fields to Notes window

MacK2 is freeware, and requires Mac OS X.

--

Steve Muncy, NI5V <mailto:smuncy@mac.com>
Dalllas, TX USA <<http://homepage.mac.com/smuncy/hamradio/>>
QRP-ARCI #10330 QRP-L #2191 FISTS #7412 QCWA #30705
ARRL Life Member

Date: Sat, 16 Mar 2002 16:46:48 -0700
From: Doug <doug@ycsi.net>

To: milligan@charter.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [122280] Re: Head copy
Message-ID: <3C93D967.841C75BB@ycsi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Keep in mind that most comercial ops who have copied Morse in 5 letter groups have developed the ability to "copy behind", holding the message in the memory "buffer" for an instant and then typing what was heard afterward. This ability helped me anyhow, and made high speed copy much easier. Call it what you want, but it's "head copy" in my book. I still find it far easier to copy behind, especially when in QSO with a higher speed station, hold what I need in the ole' brain and pull it out later when I need it. Hard to say why, but it works for me.

Interestingly enough, the first thing to fade when I'm off the key for a while is the "brain buffer" size, and my ability to hold out certain key info, name, qth etc. Dont really know why, but I've been a Morse op, both International and Landline for 40 years now and nothing has changed, still need to get on the air and keep the bug hot.

73 all

Doug, K7YD
Livingston, MT

Bill & Linda Milligan wrote:

> Learning to head copy was very difficult for me and I had to force
> myself to set the pencil down. I used to write down every letter and it
> was a hard habit to break. What helped me was having a friend to chat
> with. Oh sure, I miss a word now and then but I still follow the
> conversation.
>
> You also need to be 20wpm+. I'm not a speedster but some words like
> 'THE' can be copied at very high speeds. It becomes one sound. I believe
> all of you hear some word sounds without realizing it. I'll bet that
> when you hear ES your mind thinks AND. I'd say that ES is probably the
> first word sound learned. It becomes one sound.
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> In the evenings tune in W1AW and just sit back in the chair and head
> copy. Practice, practice and practice. If you don't put the pencil down,
> you will never learn. I don't reckon I'd ever learn to ride that bicycle

> if the training wheels stayed on. Put down the pencil.
>
> And talking about code.... I remember years ago listening to 20wpm
> thinking no human can copy that! It sounded like RTTY! Everything is
> difficult until you've done it.
>
> Bill K4BX
> k4bx@charter.net

Date: Sat, 16 Mar 2002 16:52:52 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: <we6w@qsl.net>, qrp-l <qrp-l@lehigh.edu>
Subject: [122281] Re: ZM-2 vari-cap
Message-ID: <B8B928E4.1304A%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Ed - Replacement capacitors are available from Emtech, the manufacturer of the ZM-2.

Nice to see you back on QRP-L - Duffey

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

End of QRP-L Digest 2496

